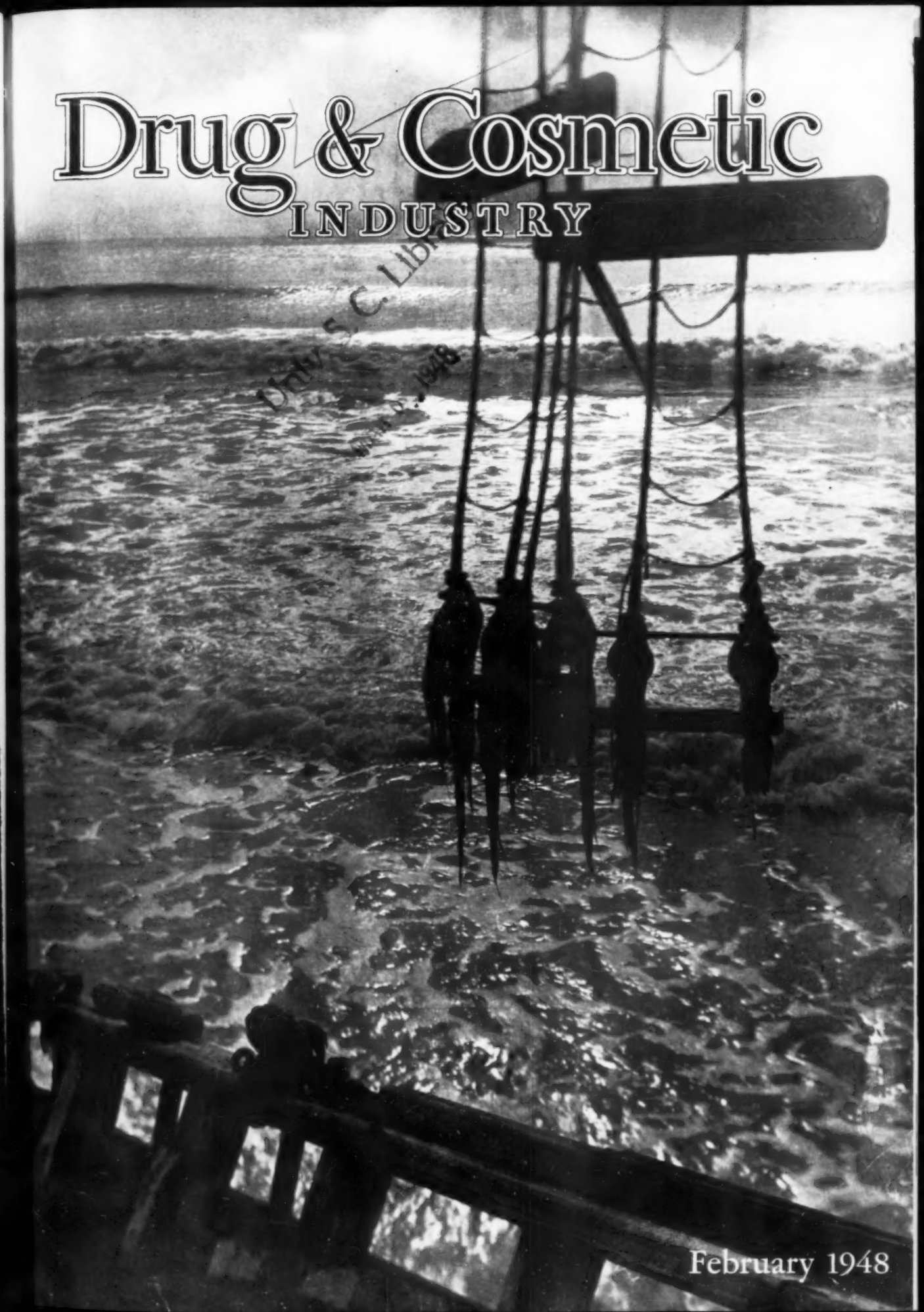
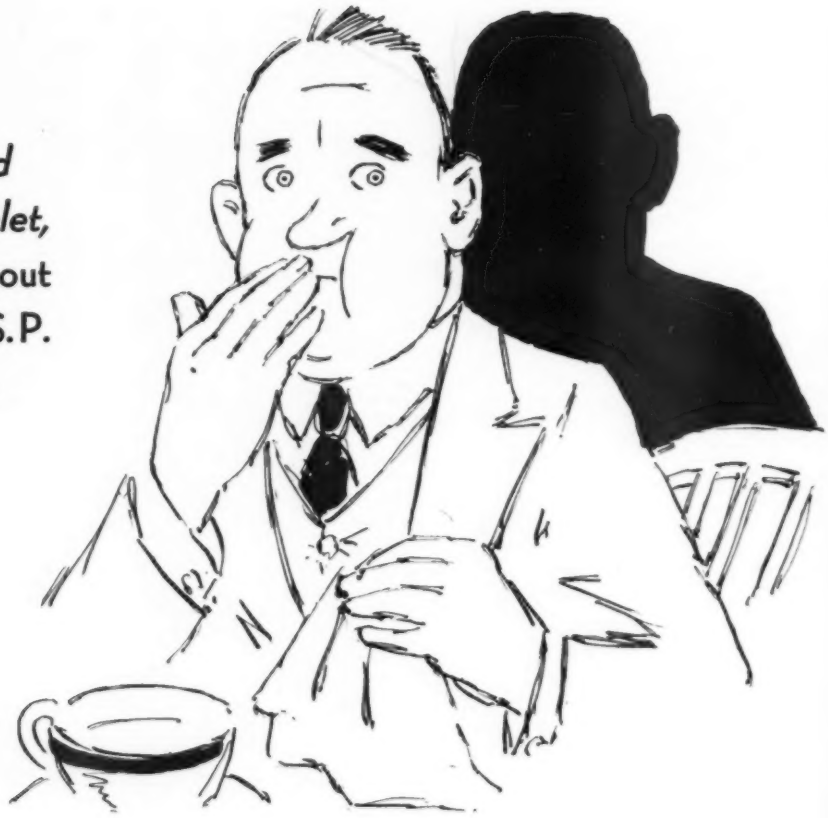

Drug & Cosmetic
INDUSTRY
February 1948

When Mr. Field's Indigestion was cured with an Antacid Tablet, He Didn't Know About SNOW TOP U.S.P. Precipitated Calcium Carbonate.



All he knew was that he felt like a million dollars! And that was all he needed to know.

But manufacturers seeking new and better ways to make improved, advanced products may find their answer in SNOW TOP U.S.P. Precipitated Calcium Carbonate. SNOW TOP U.S.P. is an old-timer in industry-wide service. For years the cream of American manufacturers of antacid tablets have counted heavily on SNOW TOP U.S.P. as an effective ingredient because of its high color, purity, fineness and freedom from taste.

Always uniform, SNOW TOP U.S.P. is made in several grades making it adaptable to many industrial requirements. Backed by Industrial Chemical Sales' guarantee, manufacturers of antacid tablets, dentifrices, confections, drugs and pharmaceuticals know that their shipments will arrive exactly as ordered . . . and exactly when promised.

SNOW TOP's most effective salesman is a sample. Write, wire or phone for one today.

SNOW TOP

industrial CHEMICAL SALES

division west virginia pulp and paper company

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NEW YORK 17, N. Y.

PURE OIL BLDG.
35 E. WACKER DRIVE
CHICAGO 1, ILLINOIS

PUBLIC LEDGER BLDG.
INDEPENDENCE SQUARE
PHILADELPHIA 6, PA.

LEADER BLDG.
526 SUPERIOR AVE., N. W.
CLEVELAND 14, OHIO

Drug & Cosmetic INDUSTRY

FEBRUARY 1948

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Judicious sampling has long been one of the most successful of all methods to introduce a good new product. One of the most *effective and practical* of all containers to carry your product *and booklet or other sales message* is a New England *"Sheffield Process"* Collapsible Tube and Carton!

Aggressive distributors of fine products invariably choose the *tougher* "Sheffield Process" Tube and Carton for sampling campaigns. For, here, it is more than ever imperative that the product reach the user clean, fresh, easy-to-use . . *together with a persuasive sales message that can't be overlooked!*

Highly trained New England field men will gladly council with you on sampling campaign plans or your regular requirements for better, stronger, *more attractive* Collapsible Tubes and Tube Cartons. Your phone call or letter to our nearest sales office will quickly bring you the kind of service and cooperation you want.

New England
SHEFFIELD PROCESS
TUBES

NEW ENGLAND COLLAPSIBLE TUBE CO.

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T. C. SHEFFIELD, 7024 MELROSE AVE., LOS ANGELES 38 • C. W. MILLER, 151 COLE ST., SAN FRANCISCO 17
EXPORT DEPT: 500 FIFTH AVE., NEW YORK 18, CABLE "DENTIFRICE", NEW YORK

"You mean he gets paid for testing indelible lipstick?"

KEEPING POSTED

The Sullivan Case

IN WHAT is probably the most important court decision since the Food, Drug, and Cosmetic Act was enacted in 1938, the U. S. Supreme Court decided that Food and Drug Administration has complete control over the labeling of a product until it reaches the ultimate consumer. The decision was handed down in the famous Sullivan case and involved both interstate and intrastate shipments.

The drug involved was sulfathiazole tablets, a bottle containing 1,000 of these tablets having been shipped from a manufacturer in Chicago to a wholesaler in Atlanta, Georgia. Some nine months later the wholesaler shipped this bottle of tablets to Sullivan's Pharmacy in Columbus, Georgia. In Sullivan's Pharmacy two lots of one dozen tablets each were taken from the bottle and sold in boxes with merely the name of the drug written on the boxes. They were not sold on prescription, and no directions for their labeling were given on the containers which the purchasers received. In a criminal proceeding the Food and Drug Administration charged Sullivan with misbranding under the Act.

The U. S. District Court decided in favor of the Government, but the U. S. Circuit Court of Appeals for the Fifth Circuit reversed this decision. The case went to the U. S. Supreme Court on a writ of ceriorari, and this court reversed the Circuit Court and upheld the Government by a 6 to 3 decision.

The charge against Sullivan was brought under Section 301 (k) which prohibits the commission of any act with respect to a drug if such act is done "while such article is held for sale after shipment in interstate commerce and results in such article being misbranded." The majority decision, written by Justice Black, stated that Section 301 (k) was included in the Act "to extend the Act's coverage to every article that had gone through interstate commerce until it finally reached the ultimate consumer. Doubtless it was this purpose to insure federal protection until the very moment the articles passed into the hands of the consumer by way of an intrastate transaction that moved the House Committee on Interstate and Foreign Commerce to report on this section of the Act as follows: 'In order to extend the protection of consumers contemplated by the law to the full extent constitionally possible, paragraph (k) has been inserted prohibiting the changing of labels so as to misbrand articles held for sale after interstate shipment.' We hold that Section 301 (k) prohibits the misbranding charged in this information."

Justice Frankfurter, in his dissenting opinion, stated that the intention of Congress was not so clear. He agreed that an article is misbranded after shipment in interstate commerce "if the label has been altered, mutilated, or destroyed." But he claimed that taking a tablet from a container and putting it in a box was not the intent in adopting the misbranding clause; otherwise any retail sale, of candy or cosmetics for instance, sold in any drug or grocery store, would place every retailer under the hazard of being prosecuted.

Justice Rutledge answered Frankfurter by stating that any business inconvenience where the public health is involved is of secondary importance, and as health security is the only criterion, Congress did not contemplate any exemptions.

Cosmetics Bring More

APPARENTLY a good cosmetic company is worth more than a good food company. Gillette's recent purchase of Toni for a price that is reputed to amount to 20 millions of dollars, in various forms of payment, acquired for Gillette a business that will gross a little over 20 million dollars this year. This is a purchase where one dollar of purchase money equals one dollar of annual sales.

About the same time, Nathan Cummings of Consolidated Grocers, Inc., Chicago, who last year introduced himself to the cosmetic business in his negotiations for control of Associated Distributors, purchased Rosenberg Products Company of San Francisco, the largest, independent operator in the world in dried fruits and tree nuts. Cummings is reported to have paid 18 millions of dollars for Rosenberg Products, which last year grossed well over 75 millions of dollars in sales. This makes an approximate ratio of one dollar purchase price to every four dollars of sales.

Drunk on Water

ACCORDING to Dr. Robert Elman, Professor of Clinical Surgery, Washington University, the patient can get drunk on water. "Within two or three days following an operation," said Dr. Elman, "the patient sometimes becomes so deficient in salt that he goes into an acute state of shock. That is what would be called getting drunk on water."

Monopoly and the Lanham Act

A DENIAL by the U. S. Circuit Court of Appeals prevents the California Fruit Growers' Exchange from stopping a bakery in Rock Island, Illinois, from using the name Sunkist on bread. In the decision the Court was rather sarcastic of the possibility of confusion in the consumer's mind distinguishing the famous trade-mark Sunkist, established for fruits and vegetables, with a product such as bread.

Said the Court, "Unless Sunkist covers everything edible under the sun, we cannot believe that anyone whose I. Q. is high enough to be regarded by the law, would ever be confused in the purchase of a loaf of bread branded as Sunkist because someone else sold fruit and vegetables under that name. The unconscionable efforts of the plaintiffs to monopolize the food market by the monopoly of the word Sunkist on all manner of goods sold in the usual food stores should not be sanctioned by the Courts."

This was the decision of the Court in its wisdom, but whether the Court is fully informed on the confusion that may exist in the consumer's mind, even among those who may be legally recognized, is something else again.

It is interesting that at this very time a new organization called the "Brand Number Audit" at Princeton, New Jersey, has been formed to study the degree of brand recognition by the public. We understand that some preliminary studies are showing some very startling aspects of the consumer's ability to associate a known brand name with the specific product for which it is trade-marked. Not many really scientific studies have been made along this line. Advertisers have spent a tremendous amount of money in the last decade on market research and on determining the competitive position of brands, but there is very little real information of the getting-down-to-earth sort which indicates the degree of brand recognition and brand identification of a product within various communities within the United States.

Sunkist is one of the famous and valuable trade-marks in this country. Many millions of dollars have been spent in very effective advertising to establish this name as a quality identification for fruits and vegetables. For many years consumers have purchased Sunkist products and have had firmly fixed in their minds the identity of the product with this name. Nevertheless, we suggest and firmly believe that if a careful and scientific investigation were made in any part of the country, including Rock Island, Illinois, it would be found that there is a considerable number of people legally competent who cannot identify the product on which the Sunkist trade-mark is used. We believe that this same condition would exist for any other famous trade-mark name.

If under the Lanham Act, owners of trade-mark names face a similar, dangerous restriction of their trade-marks, then the time has certainly come when business must get the facts which will prove that no trade-mark ever reaches the point of complete identification with the product, that, in fact, even with the most successful trade-marks, there always exists a wide area of possible confusion; that this area is a legitimate territory of the trade-mark owner and is in fact the rightful field of his future expansion, and that he should have a legal right for protection in this area of possible confusion.

The Devaluated French Franc

WHAT effect the devaluation of the French franc is going to have on the price of French perfumes is a question occupying the thoughts of many in the industry. The following facts as pointed out by A. L. van Ameringen of van Ameringen-Haebler, Inc., are of importance to every one who is trying to answer this question.

Of the many hundreds of raw materials used in the manufacturing of a perfume, only comparatively few originate entirely in France or the French Colonies; while a much larger number of them have to be imported from other countries against foreign exchange. Of those raw materials requiring foreign exchange he points out some of the most important ones such as Tonquin Musk, Civet, Ambergris, Patchouly, Sandalwood, Bergamot, Bulgarian Otto of Rose, Angelica Root, Orris Root and Oil of Citronella Java.

This group of raw materials when imported against foreign exchange automatically becomes 80 percent higher when calculated in French francs if the foreign exchange is purchased at 214 francs per dollar, and becomes approximately 150 percent higher if the importer has to buy his foreign exchange in the free market. On the other hand, the different essential oils produced in France and the French Colonies are mainly distilled by farmers, and as a rule, in small quantities. Even after the few days which have elapsed since the devaluation of the franc, it has already become apparent that the French and French Colonial farmers who produce those essential oils, are withholding offerings to await further developments.

Lavandin, for instance, showed a 33 $^1/_3$ per cent decline in dollar value immediately after the devaluation, but no offerings can be obtained today as the farmers are waiting to see what effect the devaluation will have on their cost of living.

They are not so much interested in the franc price per kilo which they can get for their merchandise as they are interested in finding out what such an amount of francs will buy them in bread, meat, shoes and other necessities of life.

As far as the Grasse flower oils are concerned, the stocks on hand were made from flowers purchased from the farmers by the flower oil manufacturers in 1947, and undoubtedly a considerable price decline can be expected. However, this decline cannot be as as great as the franc devaluation itself.

Taking all the above facts into consideration, it is therefore doubtful whether the French manufacturers of perfumes will find that the franc devaluation will have reduced the cost of their perfume raw materials when calculated in American dollars, to any extent; while on the other hand their labor cost cannot stay at the predevaluation level.

From a cost standpoint, it is therefore impossible to see how the franc devaluation can cause a serious reduction in the dollar price of French perfumes.

Insect Age

A SUPER-FLY, born, and in residence at the Orlando Laboratories, Bureau of Entomology and Plant Quarentine, U. S. B. A. is a living testimony that science can never rest on its laurels in the continuous fight against diseases of man, animal or plant.

This fly, now in the 14th generation of a special breeding, is able to inhale double doses of DDT with apparent impunity. This does not mean that DDT may lose its place among insect killers.

According to these techinicians, as flies are killed off by any insecticide, new, robust and more resistant strains develop from survivors.

Fair Trade

STERLING Drug, Inc. has been permitted to intervene in a suit which may prove an important test case in the state Fair Trade Law. The department store, Webb City, of St. Petersburgh, Florida, has attacked the validity of the state Fair Trade Law, filing suit against the state of Florida, the attorney general, and the attorney for the county.

Webb City, which does the reputed business of 12 million dollars a year, and is said to have entered into a wide price-cutting campaign of branded products, has refused to stop Fair Trade violations and is vigorously contesting the validity of the state law.

Edward S. Rogers, Chairman of the Board, of Sterling Drug, several of whose products have been subject to cut prices, has been granted permission to intervene in order to present the manufacturers' viewpoint.

Social Competition

WAS the recent convention at Palm Beach an extravaganza, a glittering social spectacle, or a meeting of business men? Opinions differ. Nearly everyone admits it was a social spectacle, and an extravagant one. All have to admit that one morning was given over to business.

Why is it that these one-time conservatively conducted business conventions should suddenly, in Canada last year, and now at Palm Beach, startle and shock an industry that is only too used to convention ways? Why must souvenir samples be given to each of the eight hundred attending in so large handed a way that it takes a duffle bag to hold the samples for each visitor? Why must some manufacturers compete so vigorously for the biggest, the best, the most lavish party, and in such numbers that three parties may run at one time? Why try to stun the guests with prizes to outdo all other prizes? Is this just the natural ebulliency of an admittedly vigorous part of the teppe suddenly breaking from its youthful bonds like a butterfly from its chrysalis—or should we say a Dragon-Fly? Or is it just a little bit like the social newcomer too vigorously asserting equality? Again opinions differ. But some penetrating trade observers say that we should not ignore a certain significance in the social prestige of the wholesalers' convention. These dignified gentlemen have for years been hosts at a convention that has provided one of the social occasions of the business year. It has been widely favored by owners and executives of our principal manufacturers who almost invariably brought their wives. Or, as has been remarked on some occasions, in reference to busy or not too convivial executives, their wives brought them. It would appear that wives are very important people at business conventions.

Whatever the deeper undertones may be in this new trend for conventions, we hope that other influences will make themselves felt. A competitive struggle for social purposes would be downright silly for a trade association and a business convention. It would be unfortunate to deny a business convention to a small company executive who either can't afford the time or the money. It would be unfortunate in a political sense to create a totally wrong impression of a section of business that is practical and business-like when at home. Let's hope that conventions keep within reasonable bounds in time and money needed to attend and in inviting social competition embarrassing to the smaller companies.

Best Seller

THE Saunders Company, since 1893, has been one of the largest publishers of textbooks and reference works for doctors, dentists, nurses and veterinarians. Its current list includes "Thrombo-angiitis Obliterans," "Clinical Mycology" and—well, here it is—"Sexual Behavior in the Human Male." The last is by no means the least attractive—in fact, it promises to achieve a position somewhere in the sales bracket of "Gone with the Wind." Two hundred thousand copies have been distributed, and the demand increases. The Saunders Company never had a best seller before, and does not attribute the popularity of "Behavior" to the advertising of the book, which is "solemn and institutional" in character.

Controversial Paralysis

"MEDICAL progress is paralyzed by the bitter debate between proponents and opponents of national health insurance," charges Oscar R. Ewing, Administrator of the Federal Security Agency. Addressing the National Commission on Youth and the officials of the American Medical Association he announced that he "believed in health insurance and expected to fight for it" adding, "Let's get ahead on problems on which we do agree while we are fighting on that subject; we should not let this controversy completely paralyze our action."

He named more health research, more health personnel, and more local health units as three fronts on which everybody was in agreement, interpolating that the amounts expended by this country for research on health problems, child health problems particularly, is "infinitesimal."

New Method to Kill Insects

A NEW way of sneaking up on insect pests has been discovered by the U. S. Department of Agriculture. This method is to feed to animals certain chemicals which make the blood of these animals poisonous to the insects. This is really the most direct approach to a problem that we have ever encountered. No use wasting a lot of time and money killing a lot of bugs that do not annoy anyone, only bother with the ones which really deserve capital punishment.

States Rights

SOME day the Smithsonian Institute may set aside a room to preserve the relics of state rights. Not too many business men realize how deeply the Federal Government, through the courts and through its bureaus, have encroached upon rights that almost every citizen has taken for granted belong to the states.

For instance the Federal Power Commission has recently granted licenses to an Iowa cooperative to construct a dam and power plant on a river within Iowa's borders. This license was granted in opposition to the state of Iowa, its Highway and Conservation Commissions, the City of Cedar Rapids, Iowa Electric Power & Light, Iowa-Illinois Gas & Electric, Iowa Southern Utilities, four Railroad Brotherhoods, Coal Associations and land owners. In spite of the impressive array, the license was granted on the basis that the river was navigable because the Commission is in a position to prove that an Indian made a canoe trip down the river in 1847.

A few years ago it was determined that elevator operators in a New York City building were engaged in interstate commerce, for the purpose of the Wage and Hour Law, because they were transporting individuals or products that were in interstate commerce. We have just seen that a retailer who purchases out-of-town products, even though purchased from a wholesaler within his own state, is engaged in interstate commerce for the purpose of the Food and Drug Act.

Defenders of state rights are often vociferous in proclaiming their position, and perhaps if the public at large were fully aware of the attrition that has been taking place in subordinating the state, this issue would become much more active politically and would be discussed much more widely.

Unfortunately, the adherents of state rights must some day face fully the fact that public opinion leans heavily toward a far greater respect for Federal integrity and efficiency in administration than for the administration by most states. Too many states have failed to keep up with majority enlightened opinion either in legislation or in efficiency of administration or in coordinating these two with other states where this has become imperative in our modern society. It must also be said that even where states have been enlightened in their laws and honest and efficient in the administration of them and have tried to consider the rights and interests of the residents of other states, they have failed miserably as compared to the Federal Government in a publicity program that would sell their citizens on the kind of a job they are doing.

Facts and Figures

IT WAS disclosed in a 1945 survey that the drug industry, as a whole, expended at least forty millions of dollars for research, of which amount the pharmaceutical industry spent up to sixteen millions, according to Charles Wesley Dunn, Council for the American Pharmaceutical Manufacturers' Association. His more recent survey discloses that the entire drug industry spent more than fifty millions in 1947 for scientific research, of which the pharmaceutical industry spent up to twenty-three millions. These surveys show further that the drug industry did a domestic business of at least five hundred and fifty millions in 1947—one hundred and fifty millions more than in 1945.

Vanity Fare

IF A bill introduced in the legislature at Albany becomes a New York State Law, cosmetologists can be licensed to "stimulate the growth of the hair of the head of any person, male or female." The existing law provides that they confine their work only to female persons. The bill was introduced by Walter J. Mahoney, Buffalo Republican Senator, who is abundantly provided with crowning glory, but his altruism extends to his bill also permitting cosmetologists to "exercise the face, neck or arms of a "female person."

Wonders Never Cease

SOME of the wonders yet to come were disclosed by Dr. Austin Smith, before the American Pharmaceutical Manufacturers' Association. Examples of these wonders are promised by the extensive research on radioactive isotopes for the treatment of cancer of the thyroid and leukemias and for the tracing of the actions of body tissues. Equally important and exciting are the use of amidines for the treatment of myelome—the administration of endocrines in the treatment of cancer, the chemotherapy of tuberculosis, the newer knowledge of vitaminology, such as the use of folic acid in the treatment of macrocytic anemias, the control of allergy with antihistaminic substances, the development of new pain relieving drugs and anesthetics, the chemotherapeutic control of glandular disfunctions, the control of muscle contraction with curare, the treatment of epilepsy, and the development of new preparations for the so-called tropical diseases. These are just a few of today's advancing researches. By now, the sulphonamides, penicillin and streptomycin almost seem like ancient history.

And We Quote

TWENTY years ago the most space in medical textbooks was taken by typhoid fever, according to Dr. Morris Fishbein. Today typhoid is so rare that many medical students have never seen a case; the death rate for pneumonia has fallen to a few per cent. The trend of future research should be in the direction of the chemical and physical changes that occur in the tissues, of the metabolism of the amino acids, of the relationship of salt, calcium, chlorine and cholesterol to the changes in the tissues.

Atomic Welfare

THE United States Atomic Energy Commission has set up, recently, a $1,000,000 fellowship fund to finance the training of doctors and biologists in a new field of science. The funds will be spent to carry out the first year of a long-range program designed to relieve the shortage of trained personnel in the field of atomic energy as applied to biology and medicine. The scientists educated under this program will be encouraged to study the use of radioactive-isotopes in diagnosis and treatment of disease, to examine their effects upon plant life and to develop better protection for workers in atomic plants. A $1,500,000 fund also has been set up by the Commission to provide fellowships for about 150 university graduate students seeking doctorates in the physical sciences, and 30 who have already received their doctorates. Both fellowship funds are being administered by the National Academy of Science.

Liability of Private Label

IN A recent decision in the Parfait Powder Puff case the U. S. Circuit Court rendered a decision which is of extreme interest in clarifying the relations and the liabilities between a manufacturer or distributor and a private label house employed to manufacture and ship.

The Parfait Powder Puff Company brought out a shellac lacquer for the hair. A private label company agreed to impregnate pads with hair lacquer, to package and apply labels and to ship under definite instructions. The defendant in the case supplied various caps, labels, display cards, containers, etc., and reserved the right to appear frequently in the shipping room of the private label company to direct shipments and priorities.

Without the apparent knowledge of the defendant, the private label company replaced a gum in the formula, which was no longer available, with a gum of its own selection. The defendant claimed that, as soon as they discovered this change from trade complaints of deterioration of the product, manufacturing and shipping was stopped. However, in rendering a decision finding the defendant guilty, the Court, in effect, declared that in introducing in interstate commerce adulterated goods, Parfait was solely liable for the acts of its agents.

In a recent discussion of this case an interesting question was asked by an attorney, that is if a pharmaceutical manufacturer is informed by a salesman that a druggist is selling a prescription product bearing his label, over the counter, and takes no action, does any liability rest on the manufacturer.

Opportunity Knocks

THAT the discoverer of an analgesic for treatment of the intractable pains of malignancy other than an opium derivative, efficacious by mouth, and devoid of resultant irritations to the alimentary tract, would be gratified, indeed, to witness its merciful and extensive use, is an opinion expressed by Dr. Frank J. Stockman, vice-president of Winthrop-Stearns, Inc., when addressing the midyear meeting of the American Pharmaceutical Manufacturers' Association.

Which Session D' You Attend?

"LEADING causes of death in the United States in 1945 were:

Disease of heart and blood vessels	587,000
Cancer	177,000
Accidents	96,000
Nephritis	88,000
Pneumonia	68,000
Tuberculosis	53,000''

Dr. Austin Smith, addressing A.P.M.A.

"Today the death rate for pneumonia has fallen to a few per cent."

Dr. Morris Fishbein to the A.P.M.A.

"Among the 'Big Ten Killers' only two other infectious diseases, pneumonia and influenza, are still included."

Dr. Frank J. Stockman to the A.P.M.A.

A Big Plus for McKesson

DR. H. C. NOLEN of McKesson & Robbins stated recently that the company now has 70 wholesale drug divisions, the largest number since the company was incorporated; and, that of McKesson & Robbins' current business, 50 per cent is in pharmaceutical products which were not in existence prior to the war—the most important being penicillin and streptomycin.

Organized Detailing

IN THE interests of more efficient and thorough sales coverage four surgical supply companies have formed a sales association called the Group Representation Plan. The companies, Austenal Laboratories, Inc., J. Bishop & Company Platinum Works, Oxygen Equipment Manufacturing Corp., and C. M. Sorenson Company, Inc., are all manufacturers of non-competing products. All have the same problems of sales representation to the dealer and detailing hospitals and physicians. The essence of the plan is common representation in common territories by all four companies. The association is purely for sales purposes, with no orgainzational tie-up between the companies, financial or otherwise.

Unquestionably, the Group Representation Plan provides advantages to dealers as well as manufacturers. Instead of receiving infrequent visits from representatives of each company, dealers will see one man representing the group at more frequent intervals. Thus uniform representation in all territories plus more thorough coverage in smaller territories is assured.

F.T.C. Challenged on "Free" Offer Ban

THE Federal Trade Commission, in a three to two vote, has issued a new ruling on use of the word "free" in connection with offers of merchandise in advertising Commissioners Mason and Freer dissented. The latest FTC ruling is:

"The use of the word 'free' or words of similar import, in advertising to designate or describe merchandise sold or distributed in interstate commerce, that is not in truth and in fact a gift or gratuity or is not given to the recipient thereof without requiring the purchase of other merchandise or requiring the performance of some service inuring directly or indirectly to the benefit of the advertiser, seller or distributor, is considered by the Commission to be a violation of the Federal Trade Commission Act."

The National Better Business Bureau has taken issue with this ruling, claiming that the Commission has reversed itself since a clarification of its position given to the BBB last July. The BBB sees nothing wrong with an obligation to purchase being part of a "free" offer so long as no deception is involved.

FDA "Busts" Drug Violator

DUE to a number of complaints from disappointed women, who had been promised voluptuous bosoms by applying a cream, the Government has cracked down on Daniel Platt, head of the Formalon Company, New York.

Early in 1946 women began receiving letters from the company promoting a bust-building cream "Formalon" priced at $3 for a two-ounce jar. References from medical men, according to a U. S. Attorney's office spokesman, were fictitious.

The letters maintained that an "estrogenic" substance called "stilbestrol" developed by the company would guarantee bust development. Twelve women who tried the cream complained to the Food and Drug Administration. After testing the cream and finding statements false and misleading the administration referred the case to the U. S. Attorney's office of New York.

Mr. Platt, if found guilty of selling a misbranded drug in violation of the Federal Food & Drug Act would be liable to the maximum sentence of 12 years in prison and a $12,000 fine.

COSMETIC

THE perfume and cosmetic business did not escape reconversion. The fact that it was delayed for a full year and that many of its implications were not widely recognized, made the impact of this final hour so much more severe for many manufacturers and retailers.

The reconversion problems of the industry, with few exceptions, had nothing to do with production. They were to be found almost entirely in the field of selling, in distribution, in advertising, and in sales and sales administration overhead.

For over five years this industry had surged forward under the pressure of a continuous and expanding demand for its products. For three of these years the demand had been clamorous. Some millions of consumers were reaching up into new and unfamiliar price ranges. Many millions were spreading their purchases to include perfumes and cosmetics never before used by them. These consumers, many of them uneducated in the familiar brand names of the industry, with established shopping habits not easily changed, altered the fixed character of the retail trade and gave the opportunity for many alert individuals to quickly establish themselves as manufacturers of perfumes and cosmetics.

The fall of 1946 brought a change in consumer purchasing habits which affected this industry out of all proportion to its actual dollar measure. In terms of dollar purchases of perfumes and cosmetics, the percent decline at that time and during 1947 was slight. But the effect on many individual manufacturers and on many retailers was severe.

Cosmetic retailing has been troubled with two basic problems during this last year. One, an inventory swollen by too enthusiastic buying and selling, and including some unwanted goods or goods not now so easily sold in certain of these stores; and two, the specific problem of readjustment by many retailers who migrated into this industry or who expanded their activity in selling perfumes and cosmetics beyond the normal formerly established for their stores.

The problem of inventory adjustment has been a general headache of nearly all cosmetic retailers, including the best as well as the worst stores. It has made necessary plenty of readjustments by both manufacturers and retailers. But it has been largely a transitory problem. More important in its longer range implications has been the changes in the structure of the whole retail field which arose out of the enthusiastic and lavish buying of perfumes and cosmetics during these five years.

For instance, many men's shops—the haberdasher—entered blithely into cosmetic distribution at a time when men's toiletries were catching the public fancy to an ultimate tune of twenty million dollars annual volume. These stores had, during this period of many shortages in men's wear, both time and space to spare. Men's toiletries did seem a natural for a men's shop.

Ultimately, in the last year of their grace, they extracted over one million dollars in annual sales from this industry. Many manufacturers of men's toiletries and many of these haberdashers felt that these stores represented a small but permanent and perhaps growing change in cosmetic distribution. The fact that cosmetics, in this environment, did not make a natural shopping habit, that the traffic of these stores are small, that space and selling time are normally devoted to products of much higher unit value, and that their sales clerks were not trained to cosmetic selling, did not alter this opinion. Now, with few exceptions, this type of retailer has faded from the cosmetic scene.

Again, in the large sales expansion of this industry, department stores gained in cosmetic and perfume volume at a progressively better rate than drug stores. Many smaller department stores with formerly insignificant cosmetic departments found now that their clientele would, for the first time, support an expanded department including prestige or higher priced brands. The close association of perfumes and cosmetics with fashion, which matured during these years, had already made the large, dominant, specialty store, with large traffic a permanent and successful part of perfume and cosmetic distribution. Encouraged by this success of the relatively few large, departmentalized specialty stores, by the growing publicity linking fashion and apparel with perfumes and cosmetics, and stimulated by several famous apparel makers who entered the perfume business with their own brands, many small specialty stores opened perfume and cosmetic departments. Now many of these stores find this depart-

ment a diversionary and hardly profitable use of the square feet occupied by it.

Among all the independent druggists hardly one out of ten has ever shown a flair and an inclination to favor and feature the perfume and cosmetic part of his business. Over these five years, however, many new druggists were lured into expanding this department. The abundance of goods offered by this industry, the public clamor for them, the ease with which high priced products could be sold, led many a druggist to favor a department beyond the point of his own natural perference and often beyond anything justified by the character or location of his store.

RECONVERSION

Now many of these druggists are facing the decision of whether to devote more time than they wish to this expanded department, and more money to competent selling. The alternative is a return to the comfortable and happy balance of departments with which they were formerly familiar, in which a reduced cosmetic department would run smoothly on a customer demand and convenience basis.

The drug chains are to some extent in this same position. An expanded cosmetic department with trained, specialized salesgirls have appeared in many additional stores of the chains, increasing the number of stores classified in the "A" group for cosmetics. Most major chains have aggressively traded up and increased substantially their recognition by manufacturers of prestige products sold in closely held selective distribution.

If chain policy of trading up, aggressive selling and advertising, trained sales help and favored location for the perfume and cosmetic department continues, this part of the retail trade may well hold their relative gains.

So, what may well be called reconversion is in process of again altering the structure of cosmetic retailing. Basically it means simply that the competent retailers who like and have a flair for selling perfumes and cosmetics and who own the right kind of store in the right location are in the process of regaining control of perfume and cosmetic retailing.

These retail changes are part of the reconversion problem of the manufacturer. Here too, are many who rode this rising market and lacking any flair, or never grasping the peculiar imponderables so essential to success in establishing an accepted trade name, are now quietly dropping out.

This does not mean that the long established manufacturers are not having their troubles too. They have had their problems in common, as in the retail trade—the problem of adjusting production and shipping to a chaotic retail trade and to a changed consumer demand. And of adjusting sales and advertising cost to this new production schedule.

But there have been other problems that are individual to each manufacturer, arising out of policy changes which were adopted early in this five-year period.

For instance, it become suddenly easy for a manufacturer whose distribution had been sprawling and indeterminate and with little recognition by top stores to change to a select pattern of prestige store distribution. Materials were short in these early years, all stores badly wanted merchandise. To shrink distribution to an ideal pattern of select stores required a little arithmetic and a list of stores—not salesmanship.

This change required a new technique in selling and advertising, new skills in store promotions, above all a new and different way of thinking in company policies. The reverse, of course, was equally easy—in fact often difficult to resist. A popular product, firmly established in a clearly defined and easily recognized layer of distribution—prestige stores—dropped previously held bars to retail expansion. During these lush years this meant no loss of sales or distribution in top stores, as would normally have taken place over a period. It did mean a gradual trade awareness that a new and different personality for that product was emerging. It meant also that top stores were finding room for other competitive brands to list as the select, prestige products of this classification, which would some day receive their preferred cooperation.

Many manufacturers face a new appraisal of their distribution. This appraisal must consider the changes that are taking place in retailing, the kind of business the manufacturer likes and is competent to direct—the kind of retailers they know how to do business with. As in other things, they can hardly have it both ways. Finding the right way is for some a tough problem in reconversion.

Mr. Retailer, Meet the F. D. A.

IT IS not often that a court decision brings to an industry spontaneous and wide-spread discussion and permits the layman to compete with the lawyer in flights of legal fancy. But that is what is now taking place, following the famous Supreme Court decision in the "Sullivan" case, which Charles Wesley Dunn has called the most momentous decision affecting the Federal Food, Drug and Cosmetic Act since that act was passed.

Briefly, this is the widely discussed Sullivan Case.

A Chicago manufacturer of pharmaceuticals shipped to a wholesaler in Atlanta a number of bottles containing 1000 sulfathiazole tablets. These bottles were properly labelled, meeting all the requirements of the act. Some time later this wholesaler shipped to Sullivan's Pharmacy, in Columbus, Georgia, (same state) a number of these bottles with labels intact.

This druggist in two separate sales, removed a dozen tablets from the properly labelled, original bottle of the manufacturer, placed them in pill boxes and sold them across the counter. The boxes were labelled only "Sulfathiazole." Omitted was the essential warning in use and the dosage. The retailer was convicted of misbranding under the F.D.C. Act.

Two principal fields of trade conjecture arose when this decision became known. First, a broad definition of Congressional intent in viewing goods in motion from producer to ultimate consumer brought retail purchases in this case under interstate commerce. This enormously extends the regulatory power of the F.D.A., bringing under its watchful eyes a large part of the entire retail trade. Since many state laws do not conform to Federal law in this field and since some states have inadequate enforcements this act, while it supersedes any state law in conflict with it, will leave most enforcement up to the F.D.A.

Of deeper interest in the trade than this new conception of interstate commerce and new power and trouble for the F.D.A. is the possibility that this act may have far-reaching effect on many other products than prescription drugs and on other manufacturers than the makers of ethical medicines or on other retailers than the druggist. In fact all the implications affecting the pharmaceutical manufacturer are not yet clear.

The Circuit Court of Appeals clearly stated a few of these implications. This Court was overruled, not because these implications did not carry weight, or were not logical, but because the majority of the Supreme Court felt that Congress intended and that the act was so worded as to carry the full protection of the act in matters of health to the final consumer. Justice Rutledge stated that any business inconvenience where the public health is involved is of secondary importance, and as health security is the only criterion, Congress did not contemplate any exemptions.

The Circuit Court of Appeals had taken a narrow construction of the act partly because a decision granting the F.D.A. this power in respect to misbranding in the case of a retail druggist, must necessarily apply in the sale at retail of food, candy, cosmetics and other devices. It implied unnecessary hardships, disruption of trade practices and a whole bag full of business headaches could logically follow such a decision. Included among the troubles which these justices perceived as possible, if not probable, are requirements for retail grocers and beauty parlors to reproduce the bulk label statements on each individual sale or even to "require retail merchants to label stocks of candy and sardines when removed from their containers for sale."

If members of the industry are not able to excel the learned judges in flights of imaginative fancy, they do have practical business experience, once given the lead, to think up some very pretty problems of their own.

Thus perfumers wonder about their bulk sales to department stores for dram resale, a powder blender may consider whether he is exposing a customer to criminal prosecution unless a proper label is made available; will retail druggists insist on proper labels for peppermint with the next order from an essential oil house; are the beauty salon, and the barber shop due for new packaging on their sales from bulk purchases; is the retailer still uninhibited on some of his own make private label; just where does the dispensing physician enter this picture.

We don't have a very vivid picture of many retailers painfully copying a label, even one containing detailed warnings. Yet a retailer can hardly insist on enclosure of loose labels with a bulk shipment when those labels contain a manufacturer's brand name and company name with the liability that may imply, from careless handling. But will this mean in some cases, small unit packages, properly labelled at the factory or

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MEDICAL RESEARCH

A Mirror of Progress

By AUSTIN SMITH, M.D.*

WHAT about our health? Are we a decadent race as some would have us and the rest of the world believe? Are we largely a group of mental and physical misfits? Are we still thinking in terms of nineteenth century treatment? Are our hospitals a maze of deficient horror chambers? Of course not. Physically, we stand second to none. Mentally, we have no reason to bow in shame. From where have come many, in fact, most, of the great discoveries in the past few decades? Without taxing the memory one can think of dozens of discoveries and advancements that have stemmed from this nation.

As for treatment and hospitals let us, as has been said before, look at the record.

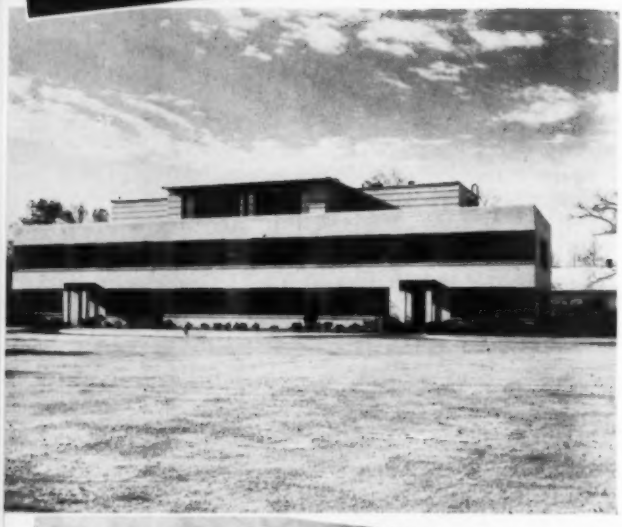
While it is readily admitted that there is need for more hospitals, where else can one find such a galaxy of treatment centers with their up-to-date operating rooms, diagnostic apparatus and technic, and other medical aids? And where can one find finer attending staffs? In this country can be seen a parade of luxuries for a nation of people healthier than any other people. Health and production go hand in hand, and around us we can observe the benefits of health. We can see on all sides the many things we have and others desperately wish to possess. As luxuries, even necessities, are missing in many other nations, so is the health of the people missing. Thus, by watching health which depends essentially on medical research one can discern other factors so important in national and international progress; each reflects the others.

For several years the protagonists for the socialization of medicine and certain self-promoting and self-seeking individuals have made capital of Selective Service statistics which revealed that 4,219,000 were disqualified for service in the Armed Forces. Of this number, 444,800 were rejected because of blindness and deafness, and because they were minus a leg or an arm; 701,700 were rejected for mental diseases, and 582,100 because of mental deficiency; 320,000 were disqualified because of club feet, paralysis, and congenital deformities; 280,000 for syphilis; 220,000 for hernia; 160,000 because of eye trouble. How much of this could have been prevented and how much could be corrected is fairly obvious to all who are interested in medical trends and statistics, but some individuals have appeared oblivious to a true interpretation of such statistics.

These figures seem almost terrifying by themselves, but when it is remembered that our population consists of 140,000,000 people, they are not quite so depressing. Furthermore, when they are compared with the enormous, in fact, almost staggering, illnesses that occur each year without fatal termination because of modern sanitation, therapy, and other health measures, they become even less significant. Of course, they cannot be ignored as they represent problems that are in need of exhaustive study. But they should not be used to hide the fact that factors such as medical education, surgery, and medical treatment, including drug therapy, have wrought miraculous changes in our outlook on health problems. When we consider how tuberculosis is declining, how pneumonia, meningitis, and bacterial endocarditis are being brought under control, we cannot help but be encouraged if we examine carefully all the facts. And this encouragement should do much to overcome today's pessimism. Much has been accomplished for which we should be thankful.

But more wonders are yet to come. A few samples of current research activities emphasizes this beyond all doubt. For example, radioactive isotopes to treat leukemias and cancer of the thyroid and to trace the actions of body tissues are the subject of intensive research and represent only a small part of the work now being conducted in this truly new phase of medical research. Equally important and exciting are the use of the amidines for the treatment of myeloma; the administration of endocrines in the treatment of cancer; the chemotherapy of tuberculosis; the newer knowledge of vitaminology, such as the use of folic acid in the treatment of macrocytic anemias; the control of allergy with antihistaminic substances; the develop-

*Secretary, Council on Pharmacy and Chemistry. Presented before the American Pharmaceutical Manufacturers' Association.



RESEARCH LABORATORIES ILLUSTRATED ARE, FROM LEFT TO RIGHT: G. J. SEARLE & CO., CIBA PHARMACEUTICAL PRODUCTS, INC., ABBOTT LABORATORIES, HOFFMANN-LA ROCHE, BRISTOL LABORATORIES, WINTHROP CHEMICAL CO., MERCK & CO.

ment of new pain-relieving drugs and anesthetics; the chemotherapeutic control of glandular dysfunctions; the control of muscle contraction with curare; the treatment of epilepsy; and the development of new preparations for the so-called tropical diseases. These are just a few of today's advancing researches. By now, the sulfonamides, penicillin, and streptomycin seem almost like ancient history.

No one person knows all the research now being undertaken, but no one disputes its enormity. Glimpse of the work can be obtained from the many scientific publications now available, but so much is printed that even an overall review is difficult to obtain. Of course, some idea of this problem can be gained from some of the excellent reviews that are made available from time to time, such as in the Archives of *Internal Medicine* and the *Annual Review of Physiology*.

Time does not permit now extensive discussion of the information available on the latest research. There are, however, some data to which I would like to draw your attention and the attention of all who are interested in medical progress and in the welfare of our nation and of other nations—and I stress the latter because I know of no way to build a strong nation unless it is healthy. Without health there is no worthwhile production. Without production there is no sound economy. Thus, it behooves everyone to recognize the possibilities that exist in the international exchange of information on health, and to support the measures that will promote such interchange. It is one activity which works to the advantage of all, and it is one topic that cannot be truthfully labeled as smacking of politics. As a member of the medical profession, and as one interested in scientific progress, I would be greatly pleased if eventually we found that the way to common international understanding and peace was paved by mutual interests in health problems and medical advancements.

What are some of these problems?

Foremost in our thoughts are the chronic diseases. Each year chronic diseases cause in the United States alone almost a million deaths and the loss of almost a

billion days of productive work. Unfortunately, the young as well as the elderly may suffer from chronic illnesses. It has been stated that sixteen per cent of all persons with known chronic diseases are under twenty-five years of age. If one is to consider prevalence, disability, invalidism, and death, one can conclude that the most important chronic diseases are heart disease, arteriosclerosis, hypertension, nervous and mental diseases, arthritis, nephritis, tuberculosis, diabetes, and asthma.

Four national organizations—American Hospital Association, American Public Health Association, American Public Welfare Association, and the American Medical Association—have recommended an intensified program for the prevention of chronic diseases, and it is the hope of all who are interested in this problem that sufficient forces will be marshalled to overwhelmingly control the problems of the chronically ill. Some idea of the enormity and seriousness of this problem can be gained from examining the leading causes of death in the United States in 1945, which were:—

Disease of heart and blood vessels	587,000
Cancer	177,000
Accidents	96,000
Nephritis	88,000
Pneumonia	68,000
Tuberculosis	53,000

At the present time approximately 4,000,000 Americans are suffering from heart disease, and another 5,800,000 from hardening of the arteries and high blood pressure. And yet, it has been stated that about 50 per cent of our health problems are preventable. It has been claimed that 12 of each 100,000 citizens of this country die each year because of diseases that affect them before they are born. Examples are measles, syphilis, typhoid fever, influenza, and body structure deficiencies.

Other diseases that must be attacked include the rickettsial diseases, cancer, leukemias and aleukemias, poliomyelitis, and other probable virus diseases, mental diseases, and neuro-muscular diseases, including multiple sclerosis. Of added interest, especially to those with foreign markets, are nutrition, tropical diseases, and worm infestations. The problem of premature aging of the tissues is of vital importance and it is worthy of special, prolonged, and immediate study.

The approaches include the education of those who can contribute to and support research, the diligent pursuing of basic and applied research, and the enlistment of combined forces whenever and wherever such cooperation seems indicated. It cannot be emphasized too strongly, or repeated too many times, that modern research is not a one man job. Another approach is the training of individuals for research and teaching and it is most encouraging to read that at least one Foundation will expend 1¼ million dollars over the next five years to attract more qualified people into medical teaching and research fields. The shortage of scientists that was made worse during the war will require years to correct.

With today's modern laboratories, specially trained scientists, laboratory equipment, and expensive in-

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COSMETICS

COLD AND CLEANSING CREAMS

Functions and Formulations

By HARRY HILFER

FOREWORD

COSMETICS have become an integral part of our industrial and economic civilization. From its origin as a backroom or kitchen manufacturing industry it has developed to the point where modern plants have been built which have taken over the manufacturing functions with greater efficiency and exactness, and where rule of thumb methods of manufacture have given way to a more exact scientific method. It is now possible for the highly trained technical men in the industry to be able to formulate preparations to functional specifications, but before they can embark on such a development program, they must know what the functional specifications are.

In an industry which possesses no functional standards for its finished preparations, it is difficult for the sales and promotional departments to convey its ideas to the technical departments and vice-versa. The term "cleansing cream" may cover three or four different types of preparations though they may all be designed to serve the same basic function—that is removing make-up from the face. Additional qualifications must therefore be made to show whether it is an oily preparation, which is desired or a relatively non-oily preparation. Additional qualifications would include—stiffness desired, sheen of the finished product and ease of application.

A series of articles, of which this is the first, will therefore attempt to integrate the desired functions with methods of formulation where these functions may be achieved. This series is in no sense a formulary, but rather a compendium of scientific facts and empirical information which the author hopes may be of aid in a step towards the standardization of function in cosmetic preparations. With this idea in mind, this series was divided into categories, based on similarity of the structure of its components, so that it may be more easily demonstrated how the treatment of the raw materials of which they are composed may be developed into the desired functions. In such a treatment there will be overlapping of functions with different products, but we think that this will be a virtue because of the greater comprehensiveness such a treatment will make.

The beeswax-borax emulsion is a classic water-in-oil emulsion and is utilized in cosmetic formulation to produce what is perhaps the largest, single category of products sold in the industry. Included in this category are cleansing creams, cold creams and the liquid cleansing creams, as well as many of the lubricating creams, skin creams and others. Since beeswax is the basic ingredient from which the formulation is built, a description of the substnace and a brief discussion of its chemistry would clarify to a certain extent the reasons for the functions it is capable of introducing into creams.

Beeswax as its name implies is a secretion of the bees which is used to build their hives. It is of a dark, brownish color, lending itself to easy bleaching and has a melting point of about 63° C. It is a complex mixture of different components, but consists chiefly of cerotic acid, myricyl palmitate, some free myricyl alcohol and a mixture of hydrocarbons of high molecular weight. Cerotic acid is probably the most important single constituent of beeswax, insofar as its abilities as an emulsifying agent are concerned. Cerotic acid is higher in molecular weight than most of the commercially available fatty acids, and this fact enables beeswax to be used as successfully as it is as a water-in-oil emulsifier. In the theory of emulsion formulation, it is believed that if the lipophylic grouping is of greater potency than is the hydrophylic grouping in the molecule, a water-in-oil emulsion would be formed and vice-versa. Cerotic acid, containing 26 carbon atoms when saponified with a stoichiometric amount of alkali, thereby forming its soap, seems to be at the boundary between water-in-oil and oil-in-water emulsion formation. Actually, it is used in emulsions of either phase, but the ability which makes it function as one or the other type is qualified by the other conditions introduced into the emulsion. This ability is far removed from the capabilities of the other commercially available fatty acids, since stearic acid for example consists of only 18 carbon atoms and is capable (as a soap) of only oil-in-water emulsion formation.

Cerotic acid, however, is not the only constituent in beeswax for which it depends on its functions. The free, myricyl alcohol helps by acting as a stabilizer and therefore helps the emulsion produced retain a large measure of stability. Cerotic acid by itself will not form a stable emulsion and the myricyl alcohol therefore is a necessary auxiliary to its proper functioning. This fortunate combination of substances in a natural product therefore makes beeswax so highly functional.

There is no sharp line of demarcation between cold creams and cleansing creams. With a few exceptions both systems use the beeswax-borax emulsion. The cold cream is usually thought of as being the stiffer and the thicker film former, after application, of the two, and though this distinction is not a universal one, it will be made for the sake of greater convenience. Both have very much the same function, to remove the superfluous foreign matter from the face and to act as a means of introducing an oily film to it. Since the largest, single agent to be removed is usually face powder, the cream should be formulated so that it may easily and conveniently remove those substances which are used to make face powders. Face powders consist, chiefly, of talc, zinc oxide, chalk, titanium dioxide, zinc stearate, magnesium stearate and kaolin. Most of these substances are preferentially wetted by oils, particularly the metallic stearates, which possess marked water repellent properties. It would therefore appear that an emulsion in which the oil phase is the continuous or external phase, such as a water-in-oil cream, would be the best vehicle by which these materials may be removed from the skin. When such a system is used in conjunction with gentle massaging, which takes place automatically during its application, it would tend to incorporate these substances into the emulsion and remove them when the film is removed by rubbing off with tissue or a cloth. The beeswax-borax water-in-oil system has proven itself extremely capable of this function, and therefore its continued popularity.

The secondary functions of the creams are dependent to a large extent upon what the compounder believes would be desirable insofar as ease of application, thickness of film, consistency and appearance are concerned. The beeswax-borax creams when properly made have a characteristic lustre and elegant looking appearance. Their consistencies and other functions are dependent on the other materials used in their formulation and their method of manufacture. The cream varies in the amount of the aqueous phase from 15 to 35 percent, and this range would allow appreciable variations in the amount of oil that could be added. Since the greater the amount of oil, the more oily it would feel, a large portion of this function may be taken care of by the introduction of the amount of water which it is felt would best fit the desired result.

Further qualifications of "oiliness" may be made by the introduction of emollient bodies such as lanolin. Lanolin, extracted from sheep wool's grease and further refined to make it fit for cosmetic use, is unique in its properties, in that in structure it more closely resembles the oil secretions of the human skin than any other commercially available material. Its use is therefore recommended as an additive substance to be utilized by dry skins. In addition it is characterized by a distinctive emolliency which imparts to preparations in which it is incorporated a "satin" like feel. Its use however must be judicious, even though theoretically it should make a water-in-oil emulsion more stable. Actually its use should be governed by the amount of the aqueous phase present. Generally speaking when used in beeswax-borax emulsion, the greater the amount of the aqueous phase present, the smaller the percentage of lanolin should be. As much as 10

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SELECTING THE RIGHT SALESMAN

BY WILLIAM T. DOYLE *

DURING World War II the United States just about doubled the capacity and ability to produce goods. All of this was done with over 10 million of our most physically fit men in uniform. Now with the War over, there is a real challenge to our capitalistic system to maintain the accelerated growth. Able salesmanship will be the key answer to this challenge.

It has been estimated that in 1942 there were probably 7,000 detail men contacting physicians in the

*Director of Sales Lakeside Laboratories, Inc.

United States. They averaged about eight detail calls a day. Most of the companies had their men strive to make at least 100 physician calls per month.

Further studies have shown the postwar period has seen a sharp increase in the number of medical representatives. Some estimate that the 1942 detail force of 7,000 will probably be upped to 12,000 in 1948. Signs indicate that most companies are intensifying their sales efforts. It is timely then to stop and consider what is involved in the hiring of men in sales management's drive to convert products into dollars at an increasing rate.

During the current year we have re-evaluated our standards of selecting men. We have emphasized to our field managers their responsibility of recruiting, selecting, indoctrinating, motivating, training, and stimulating cooperative sales representatives for Lakeside. We have pointed out to our managers that their job is the key to whether or not we will get our share in this great and intensive drive for more business. The fact has been underscored that every unqualified salesman the field manager selects costs us several thousand dollars.

The salary and expense money paid the man during the period of employment is only a small portion of the loss. The secret to success is a better selection plan.

Our goal is to have a well-trained, hard-hitting, highly-spirited group of men. While we realize that in many companies, thirty per cent of the salesmen bring in seventy per cent of the business, our job is to increase the volume of sales and at the same time get a greater spread of effort. We have been more than reasonably successful after only one year of intensive effort.

In selecting sales manpower, we might consider some of the steps we can take to improve our methods of picking the right men. It is agreed that every applicant you will consider belongs in one of the four following categories . . . either he is, (1) a man who cannot sell and therefore is unqualified, or he is, (2) a man who can persuade people to buy merchandise but for one reason or another he would not be suitable. The No. 3 man is the one who can not only persuade people to buy our line, but would be a good employee; the No. 4 man is the salesman who has possibilities for the most difficult assignment you can give him, plus possibilities for promotion.

The big problem arises when you look at an individual and find yourself faced with the job of trying to classify him into one of the above named categories.

It might be well for all men who interview applicants to have a list of things they are looking for in a salesman. This listing should be used frequently as men's memories are notoriously short. The following are some points which we use in our selection system. Not every man, of course, may have every qualification, but he should have at least 90 per cent.

1. Strong desire to be a salesman.
2. Personality acceptable to the trade.
3. Natural ability and aptitude for selling.
4. Successful sales experience in selling lines similar to yours.
5. Dependability.
6. Intelligence.
7. Loyalty.
8. Imagination.
9. Aggressiveness.
10. Thick-skinned for emotional stability.
11. Good health.

Your Needs

After you have interviewed a large number of men, you realize that field managers would profit considerably in their selection of men if they sat down and wrote out job descriptions. Such an analysis should be built around the answers to the following questions:

1. What does a medical representative have to be?
2. What does he have to know?
3. What does he have to do?

It is surprising how few field managers know or understand the importance of job specifications . . . if they did, they could save themselves a lot of time and the company much money.

In setting up our selection system for field managers, we made a ten-year study of our successful salesmen and weighed this information against a control group of sales failures. The findings were quite enlightening.

We found that the successful Lakeside salesman was in his early 30's, married, and had two children. His education consisted of two or more years of college, with special courses in salesmanship besides. He had had a successful record of selling, although not necessarily in the pharmaceutical field. While such sales experience in pharmaceuticals is preferable, there are exceptions which should not preclude their consideration.

Of particular interest was the finding that the successful Lakeside salesman had $6700 worth of life insurance, exclusive of that amount obtained while in service. "Mr. Lakewise" was not a frequent job changer. We found that he had had only two positions which he had held for five years or more.

It can be readily understood, therefore, that before field managers can be successful in keeping turn-over at a minimum, they must understand just exactly what the company is looking for in a sales representative. It is up to the sales manager to supply supervisory personnel with that information.

Where to Find the Man

Now let us assume for the moment that one of the field managers is going to employ a salesman. It has been our experience that the following procedure gives the coverage that is consistent with locating this man:

1. Newspaper ads—(not blind).
2. U. S. Employment Service.
3. Employment Agencies.
4. Colleges of Pharmacy.
5. Retail and Wholesale Drug Outlets.
6. Through friends.

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PHOTOGRAPH COURTESY OF P. A. TESTER

THEORIES ON ODORS

By CHARLES E. PRESSLER*

EFFORTS to explain the mechanism of olfaction have resulted, in the past, in the production of a multitude of theories but a remarkably small amount of data. No new data will be introduced here but instead a brief review of the salient features of some older theories will be made in order to examine their compatability with some recent discoveries. These discoveries have greatly increased the significance of a number of commonly observed but rather lightly regarded facts about olfaction.

The relative scarcity of data to confirm theories is not the result of a fondness for speculation nor a loathing of investigation. It stems from the great difficulty involved in making olfactory measurements. In the field of acoustics advances have been made through the use of sensitive instruments such as the microphone, vacuum tube amplifier, and the oscilloscope. With these devices any sound can be analyzed for pitch and timbre and then exactly duplicated without ever impinging on a human ear. Similarly combinations of color filters employed with photoelectric cells are greatly more sensitive than the human eye in distinguishing similar hues. In the measurement of odors however, the nose has remained the sole indicating instrument and it is a poor one. Its logarithmic response to changes in concentration render it unsuitable for judging odor intensity, while its inability to examine a composite odor in part, as the eye singles out portions of a complex object for individual examination, makes it difficult to obtain anything but an overall impression of such an odor. Thus the lack of suitable sensitive odor responsive instruments has greatly reduced both the quality and quanity of data which might lead to an understanding of the mechanism of olfaction.

Theories which attempt to explain the mechanism of olfaction generally resolve themselves into two distinct classes. The class with the more popular appeal contains the chemical theories. Indeed, the average man's conception of olfaction pictures the nose functioning as an analytical laboratory which operates with such speed and skill that thousands of familiar odors can be instantaneously detected and classified. Many workers have advanced chemical perception theories which involve variously, general reactivity, unsaturation as a basis for the formation of addition compounds, or oxidizability as a basis for olfaction. Other theories have been advanced however, in which vibrations have been called upon to explain this phenomenon. In some cases the nature of the vibrations is not defined by the theorist while others state that the molecule itself oscillates or that the wavelength lies in the ultra-violet or infra-red spectrum.

The groundwork was laid for the accumulation of data which was to lend great support to the vibrational theory when the Raman spectrum was discovered in 1928. Sir C. V. Raman observed that liquids irradiated with mono-chromatic light, upon spectral analysis of their scattered radiation, showed the presence of lines the wavelengths of which were different from the original light. The frequency shifts represented by the new lines was found to bear a relation to the infra-red absorption spectra of the liquids. Furthermore the shifts in frequency were independent of the frequency of the incident light but highly characteristic of the liquid irradiated. Improvements in Raman's technique have been made by R. W. Wood.

G. M. Dyson has examined the Raman spectra of perfume materials and other odorants and found a striking parallelism between odor and Raman shift. He believes there is no direct connection between odor and chemical structure and points to the difference in both the odor and the Raman spectra of several stereoisomers on the one hand and the similarity of odor of hydrocyanic acid, benzaldehyde, and nitrobenzene on the other. In addition it is pointed out that the alkyl mercaptans, which have almost indisguishable odors, all produce Raman shifts in the narrow range from 2567 to 2580. The connection between Raman shift and odor is a powerful argument favoring vibrational theories.

Recently Miles and Beck at Yale University have collected data which strongly supports a vibrational theory of olfaction:

According to the proposed theory olfaction results when the radiation of heat from an organism's receptors is accelerated. The source of heat is the organism itself. The organismic source defines the critical region of the infra-red spectrum as that in the neighborhood of the maximum of a black-body at approximately 290 to 313 degrees Kelvin. The receptors being of the dimensions of the wavelengths in the region of this maximum (8-14 microns) can by virtue of their size and shape radiate selectively. Any substance having an absorption band in this region and coming within the radiation field of these receptors will cause them transiently to lose energy. This transient loss of energy is presumably the initial event in the process of stimulation of the olfactory receptors. Differential radiation losses of the receptors account for olfactory quality as spatial stimulation.

In a group of roaches (Periplaneta Americana) placed between glass chambers equipped with potassium bromide (KBr) windows one of which was backed with glass, 15 per cent showed antennal activity when air was pulsed through the chambers, 24 per cent showed activity when oil of clove vapor was pulsed through the chambers, and 26 per cent showed activity when oil of clove was released diffusely in the room. These results could have occurred by chance three times in one hundred.

The present theory rationalizes the experimental literature on olfaction. Among other points it distinguishes odorous from inodorous substances; explains adaptation as the return of the receptor system to a new thermal equilibrium in the presence of odorous substance; accounts for the differences between micro and macro-osmatic animals on the basis of the larger absorption chambers of the latter; accounts for the anomalies in the chemical theory; and provides a basis for the reinterpretation of some of the classic work on olfaction.

Additional experiments with bees tend to confirm the nature of the vibrations which excite olfaction:

The problem in these studies was to determine if infra-red absorption bands influence the olfactory behavior of bees. Duplicate units made of cast iron provided the chambers for liquid honey, gas from the honey and a moisture absorber. An open cooling chamber adjoined the solid end of each gas chamber. A window was sealed into the other end of each chamber. For chamber "S" the window was a special infra-red filter. For chamber "XS" the same filter was used with glass behind it. On small platforms placed in front of each window a measured number of drops of honey were placed and exposed to the open air. This was to attract the bees to work near and in front of the two windows. After the platforms were removed the subsequent behavior of the bees was studied. They now clustered on the infra-red passing window in the ratio of from 3 to 10 to 1 on the "XS" window. Variations of this experiment have

*Naugatuck Aromatics Div., U. S. Rubber Co.

demonstrated in terms of proportional statistics reliable indications that the bees prefer the window which passes infra-red from the honeyed perfume inclosed in the chamber behind it. These results appear to support the hypothesis that infra-red absorption bears a relation to the adequate stimulus for olfaction.

In 1934, Krisch made a somewhat similar observation and stated that the "Oak Beauty" butterfly was able to perceive odors at such great dilution that probably no molecule of the odorant would reach its body. Fabre also noted that the male species of a certain moth was able to locate the female down-wind and in other instances where odorant vapor from the female would be unlikely to contact it directly. Both investigators attributed perception to an olfactory process and theorized that it was vibratory in nature. The evidence of Krisch, Fabre, and Miles and Beck proves conclusively that in insects the perception of odorants is accomplished through a vibrational process. The work of the latter two men is especially significant since it establishes the electromagnetic nature of the vibrations and stipulates their wavelength. This does not prove however, that man and other mammals possess a similar mechanism of olfaction but its presence in insects certainly does not preclude its occurrence in the higher forms.

There is, in fact, considerable evidence to support the theory that at least part of the human olfactory process is connected with the ability of the odorant to absorb or radiate in the infra-red range. Both Faraday and Tyndall noted that odorants were in general good absorbers of infra-red radiation. Even as early as 1870, Ogle, his curiosity aroused by the presence of pigment in an interior location, was led to speculate that olfaction was the result of the absorption of radiarion by the pigment. His argument is equally good today, expecially in view of the recent data.

The theory of Dyson is strongly supported by the evidence of Miles and Beck. It is true that Dyson states that olfaction takes place when the molecules transmit their vibrations to the nose by making "contact . . . with the bioplasm" but he puts forth no reason for believing the necessity of contact, and the "transient loss of energy" described by Miles and Beck may be all the contact that is required.

There are two fairly well-known facts which may be offered as evidence in good accord with the infra-red radiation theory. First, the sense of smell appears to be accentuated by fever. Reasoning along the lines of a radiant theory, this could be accounted for by the fact that the olfactory area could lose heat at a greater rate because of its abnormally high temperature and hence a stronger stimulus would be presented by odorant vapor. In addition, it is common knowledge among perfumers that a cool atmosphere allows better perception of odor than a warm one. This statement is apt to lead to confusion since heat increases the vapor pressure and rate of evaporation and hence raises the concentration of the odorant vapor in the air. But vapor containing a fixed concentration of odorant molecules will produce a stronger stimulus when cool than when warm. Presumably the reason for this is again the increased ability of the olfactory cells to lose heat energy.

A possible way to check the applicability of the theory of Miles and Beck to human olfaction would be the injection of odorant vapor into the nose in such a manner that it might absorb infra-red radiation but could not contact the tissues of the olfactory area. The apparatus to accomplish this would consist of a thin walled tube of material, transparent to infra-red wavelengths, sealed at one end and fitted with an inner concentric tube so that vapor could be circulated inward through the annular space toward the sealed end and back out through the center tube. The sealed end of this tube would then be inserted in the nose until it reached the vicinity of the olfactory cleft. It is recognized that practical considerations would make such an experiment exceedingly difficult to perform. The use of a narcotic would be required to produce local anesthesia and thus avert the violent sneezing which ordinarily results from the presence of foreign objects in the nose. Moreover the use of a narcotic might also deaden the olfactory nerve.

Moncreiff has suggested that olfaction may be the result of both physical and chemical processes and that a chemical stimulus from the odorant may induce a physical vibration in the olfactory epithelium. This is a combination of the physical and chemical theories. Such a combination, when all the facts become known, frequently furnishes the best explanation for natural phenomena. For instance it was once believed that light waves were vibratory in nature while matter was corpuscular but well substantiated present day theory ascribes both properties to each.

It is here proposed that olfaction is a dual process and that odorants may be perceived in two independent ways. In this connection, the two distinct types of receptors in the retina of the eye are cited. One type of element is used to distinguish colors while the other is connected with the power of resolution and it can function at light intensities too weak to stimulate the color-sensitive elements. The perception of an odorant gives a single impression which however, is probably due to the simultaneous functioning of both olfactory processes just as vision involves the perception of color and contour.

One of the olfactory processes is chemical in nature and similar to taste. The sense of taste itself is rather crude as is demonstrated by the apparent "tastelessness" of food when the nose is obstructed. Crocker and Henderson have suggested that there are four different kinds of smell nerves capable of detecting fragrant, burnt, acid, and caprylic odors respectively and considerable proof has been offered to show that these are indeed basic sensations. It may be that these correspond to the four tastes, sweet, sour, bitter, and salty. The other proposed olfactory process is of the type described by Miles and Beck and depends on infra-red radiation.

The dual process theory offers a tenable explanation

(*Continued on page 273*)

MEDICATED DUSTING POWDERS

By M. A. LESSER

UNGLAMORIZED but dependable, medicated dusting powders continue to command a very substantial market. With the possible exception of the sulfa powders used during the war and the more recent penicillin products, progress in the development of medicated dusting powders has seldom been spectacular. Nonetheless, formulators of modern products have taken advantage of discoveries in both the fields of medicine and cosmetics to produce superior, more effective dusting powders.

While medicated dusting powders find their greatest use in the prevention and treatment of dermatological conditions, they are also widely employed on mucous membranes, ulcers and wounds. Not only do the basic ingredients of a dusting powder serve as the vehicle for the active therapeutic agents, but the base also provides definite beneficial effects of its own. A properly balanced dusting powder affords a covering and protective action, hastens absorption and drying, relieves congestion, and imparts a cooling effect. In addition to these physical benefits, powders provide an excellent means for applying drugs to the skin and other surfaces.[1]

A quality common to all dusting powders is their protectant action. By clinging to the surface they form a covering that protects the skin from the irritation of air and friction. Congestion is relieved on the part covered by the powder.[2] Through capillary action, powders absorb harmful substances, including bacterial products. This ability to absorb secretions is associated with a beneficial drying action which renders the treated area unsuitable for bacterial growth and thus diminishes infection.[3] The powders are cooling because they present a greatly increased available surface for the evaporation of surface fluids as a function of this cooling action, each particle of powder accepts heat from the inflamed area and radiates it from many facets.[4]

Powders are most conveniently and effectively used in the treatment of skin folds, such as the interspaces between the toes, in the groins, between the buttocks and the like. Highly absorbent powders are contraindicated on raw surfaces that are secreting profusely because of the tendency to cake and form crusts. However, they are sometimes useful on oozing surfaces if alternated with warm moist dressings.[1] Powders made with zinc sterate or similar materials with a fatty surface, which is not wetted by water, permit seepage and evaporation and do not crust.[3]

The primary requirement of a good medicated dusting powder is freedom from grittiness. In other words, the powder itself should be devoid of mechanically irritative qualities.[3] Other desirable properties include good covering power, relatively prolonged effect, good adherence, and even distribution or slip. When used on exposed surfaces of the body, the powder should remove shininess and provide a neutral matt effect.[6] Speaking as a dermatologist, Goodman[2] has discussed the charateristics of a good powder. In his

opinion, the powder must be homogeneous and must spread freely and smoothly. It must have a silky tecture and adhere to the part. It should also give a smooth, soft and pearly finish to the skin.

Achievement of these results depends on the selection of suitable raw materials. In making a medicated dusting powder, the formulator must, of course, take into consideration the surface and condition being treated. Hence numerous combinations and variations of base materials and therapeutic are possible. As noted in one well-known dermatological manual,[7] different substances are selected because of their respective qualities. For example, talcum and zinc oxide are clean, white, and somewhat absorbent, while kaolin and bentonite are highly absorbent. Powdered boric acid, sulfur, zinc peroxide, sulfathiazole and similar drugs may be included because of their disinfectant and anti-parasitic properties. Powdered tannic acid may be used because it is astringent and an antiperspirant. Powdered menthol and camphor are valued because they are hygroscopic, cooling and anti-pruritic.

Small quantities of lanolin may be added to make a powder "stick." Zinc stearate, starches and lycopodium are incorporated to provide "slip." If required, especially on exposed surfaces of the skin, coloring agents like calamine and ochre, may be blended and mixed with the powder.

In discussing the formulation and use of dusting powders, Fantus[5] divides such products into water-absorbing powders and water-shedding powders. Absorbent bases generally consist of talc, kaolin, kieselguhr, chalk, and silica, often in admixture. Starch is sometimes used, but unless protected by antiseptics it must not be employed on discharging surfaces because of its tendency to decomposition.

Talcum or talc is probably the most widely used of medicated dusting powder bases. Aside from such desirable qualities as smoothness, slip and absorbent action, talcum is sufficiently inert to serve as a favorite diluent for the powdered medicinal agents. The importance of using sterilized talc, particularly in the production of medicated dusting powders, is apparent in a recent report.[8] According to this report from Australia, the death of three babies from tetanus was traced to infected talc used as a dusting powder.

Specially purified kieselguhr is also an excellent base for preparing medicated powders. In contrast to the more commonly employed materials, it provides such advantages as greater absorption, improved adhesion and an increased dispersion of the medicaments. Specially prepared chalks are also valuable. They are light, easily distributed and have good covering power. The inclusion of amorphous silica increases the lightness and fluffiness of medicated dusting powders.[6] Kaolin is a valued ingredient of dusting powder bases because of its effective water-absorbing powers.[5] The same type of action makes bentonite

a valuable addition to dusting powders for use on contiguous cutaneous surfaces.[3]

The stearate powders, especially those of zinc and magnesium, have the useful properties of adhering to the skin and repelling water. Both of these qualities are used advantageously, for example, in preventing irritation of infants' skin by urine.[4] Reports of poisoning following the careless use of zinc stearate dusting powders on infants have raised questions regarding the safety of this ingredient. Authorities[5-9] in this field advise that powders containing zinc stearate should be dispensed in tight-fitting, self-closing sprinkler-top containers and that these containers should be kept out of the reach of infants.

In England, zinc oleostearate is used to protect the surface of the skin in excoriations, to allay irritation and to absorb discharges in moist eczematous conditions and for excessive perspiration. It may be used in the preparation of a compound dusting powder. It can be perfumed with thymol and mixed with a suitable powder.[10]

Tantalum oxide, a new material for use as a dusting powder, offers interesting potentialities. According to Olsen,[11] tantalum oxide powder proved extremely soothing to areas of the skin which have been chafed or irritated. In addition, the powder was found to be highly effective in treating burns and other injuries. Chemically inert and exerting a soothing effect on the tissues, tantalum oxide powder seems to have great powers of adsorption when it comes in contact with blood, lymph or tissue juice. Olsen observed that the powder accelerated the rate of healing, but other investigators[12] obtained less favorable results in experiment studies.

A variety of medicinal agents may be incorporated in suitable dusting powder bases to obtain one or more desirable effects. Thus medicated powders may be made to contain antiseptics or antibacterial agents, antiparasitic compounds, fungicides or fungistats, astringents, antiprurities, and locally-acting analgesics. These may be used single or in combination, depending on the condition being treated. In some cases, as with the sulfonamide drugs, the medicinal agent may be dusted on the affected areas without recourse to a diluent or vehicle base.

Although there is considerable overlapping due to mixed ingredients, the action of the chief therapeutic agent provides a convenient means for classifying medicated dusting powders. A possible exception is the large group of mildly medicated dusting powders designed to prevent and relieve chafe and other minor irritations. Boric acid is a common, almost standard ingredient of many such powders. Soft, smooth and mildly antiseptic, it may be added to dusting powder bases in almost any desired proportion.[5] Several formulas for making borated dusting powders are given in the "Pharmaceutical Recipe Book,"[13] the following being illustrative:

(*Continued on page 264*)

MT. McKINLEY... *This 20,270 foot peak is the highest in North America and the coldest in the world. A new research station has been set up here to determine the value of certain products when affected by extreme cold.*

Peak of Value . . .

THE value of any closure is measured by effectiveness of the seal, ease of application and removal, appearance and acceptance by consumers. The Anchor C.T. Cap has a broadly rounded, accurately pitched thread that gives uniform distribution of pressure around the finish. The knurling design prevents interference with the glass thread yet maintains ideal gripping surface for sealing. The deep-rolled thread has plenty of clearance for "spin-on" action. Gold lacquer finish, coatings in various colors or lithography to match package and label design are available. Years have proved Anchor C.T. Caps to be efficient, convenient and dependable.

Anchor
CONTAINERS and CAPS

PRODUCTS OF
ANCHOR HOCKING GLASS
CORPORATION
LANCASTER, OHIO

IT'S *Anchor C.T. Caps* FOR THE PEAK OF VALUE

"Crime Photographer," Thursday evenings, entire CBS network, sells all America on glass-packaged products.

PACKAGING and SELLING

NEW DEMONSTRATOR PLAN ATTRACTS INTEREST

A LEADING Fifth Avenue department store has finally joined the ranks of those very few and limited number of stores which have no manufacturers' demonstrators in their toilet goods department. We think the number of department stores free of paid demonstrators in this department is under 10 in the whole United States.

For over a year now this store has been working on a sort of transition plan that is, no new demonstrators would be appointed and as any demonstrator left, a store girl would take her place. Manufacturers were then asked to contribute to the store the equivalent in money that they were spending for the demonstrator or any other form of sales promotion in the store.

Now the plan is that the store will pay the salary of the girls. These girls will be assigned to a manufacturer or to two or three manufacturers whose products will be segregated in the part of the department where this girl is stationed.

Manufacturers are now asked to pay a flat percentage of sales. This percentage is said to be 10 per cent of the retail sales. There is no demand on the manufacturer for this flat amount, in fact he is told specifically that he can pay this 10 per cent, or any part of it, or nothing at all. The store is willing to work with manufacturers on the training of the girls. It would seem that this policy completely relieves the retailer of any liability or question under the Robinson-Patman Act and that section which makes the buyer responsible in the same way that it does the seller.

This 10 per cent is on the retail price. That would mean 16⅔ per cent on the manufacturer's price which is a terrific jump over the amount paid for P. M.'s, but an average or below average sum for the cost of maintaining a full-time demonstrator.

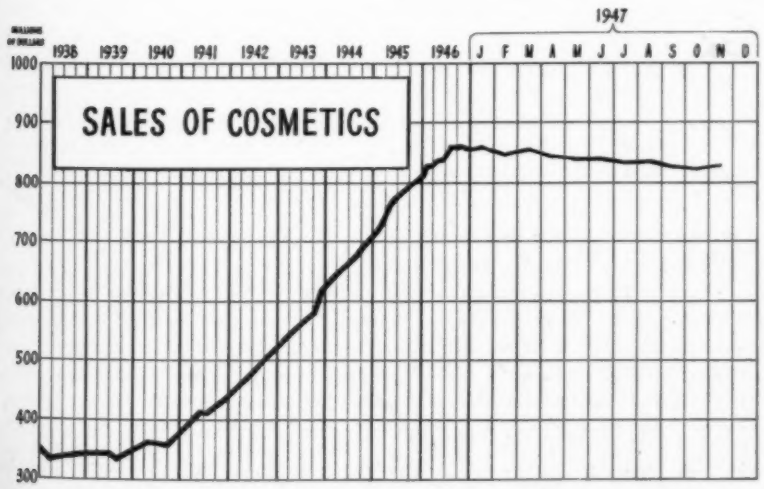
This plan is certainly the best one that we have seen yet to establish a non-demonstration system. It remains to be seen however, how the store will give the money's worth to the manufacturers who pay the full amount and just what will be the status of the people who pay 5 per cent or nothing at all. It will take a great deal of ingenuity to be fair in relations with manufacturers and to avoid what could degenerate into a system of secret or concealed demonstrators, even though they are on the store's payroll.

Returned Goods

Returned goods, a phrase that causes many a manufacturer to turn pale and shiver, has been going through a cycle that has pretty well completed its swing. About 25 years ago there was hardly such a thing as returned goods known. These were the days of *Caveat emptor*—let the buyer beware. Star salesmen were known by such names as Carload Jones, and the essence of good selling was so to overload the buyer that competitors of the seller were kept drooling on the outside for a year or two. Any buyer so lacking in self respect as to suggest a return was treated with the scorn and contempt such weak-hearted marketing deserved. Then came such things as maintenance of prestige, nationally known brands, selective selling, price maintenance and stronger retail establishment. Also came, with advertising and public identity of a quality, price and prestige for a branded product, a new concept of marketing by manufacturers.

Gradually a new and complete reversal of the attitude to returned goods developed. The manufacturer found himself without recourse in the annual retail clearance of overbought goods. Christmas 1946, brought on a deluge that was half the fault of reckless selling, half reckless buying. The bill on returned goods to manufacturers was so enormous that many leading manufacturers staggered for months.

A return to recognition of a mutual responsibility between buyer and seller



Sales of cosmetics for the twelve months ended with November 1947 amounted to $825,312,000. This compares with $822,713,000 for the twelve months ended with October 1947 and with $863,809,000 for the twelve months ended with November 1946.

is underway. Many manufacturers are adopting rigid, clear-cut policies on returned goods. Sales are being held within line of what each retailer should buy. Retailers can no longer ship without warning to many manufacturers. Some manufacturers refuse to accept returned goods, unless the retailer procures a form, fills this out including a statement of why the goods are being returned and receives an O. K., a duplicate of which is sent to the manufacturer's receiving department.

No uniform policy has been worked out on returned goods. This is one question that should head the list on a fair trade conference.

BF Awards

BEAUTY FASHION, the magazine of the perfume and cosmetic industry, announces that 1947 Awards have been presented to: Charles of the Ritz for Merchandising Policy; Schnefel Brothers for Packaging of Look Twice; Richard Hudnut for Promotion of its new line of hair beauty preparations; and Revlon Products Corp. for Advertising.

The Jury of Award consisted of Alice Farley, Lord & Taylor, New York; Frank M. Head, Whelan Drug Stores, New York; John S. Holliday, Joseph Horne Co., Pittsburgh; T. J. Marcua, The May Co., Denver; Alice Mathews, Mandel Brothers, Chicago; Sally C. McCoy, R. H. Stearns, Boston; T. M. McDonald, The H. & S. Pogue Co., Cincinnati; Sarah McKinley, L. S. Ayres, Indianapolis; and I. C. Sieving, Miller Bros., Chattanooga.

The BEAUTY FASHION Awards were established nine years ago to encourage the maintenance of a high standard of merchandising practices in the perfume and cosmetic industry.

Supreme Court Upholds F.D.A.

A recent, far-reaching decision of the Supreme Court may have a wide effect on future packaging, not only in this industry, but in any industry where products are sold in bulk, are labeled in the bulk package, but later sold to the consumer by a retailer or any service agent, in split or smaller quantities. The majority of the Court held that "misbranding" a drug includes taking it from a properly labeled bottle and selling it in an unlabeled or not properly labeled container.

In making this decision the Court had before it the warnings of a lower Court that such a ruling could be extended to include beauty parlor operators and to include grocers who buy many labeled, branded products in bulk for future reselling in smaller quantities, and might even include such things as a candy stick taken from a jar, including many candies where the stick has not been individually and properly labeled.

A druggist in Columbus, Georgia, purchased several bottles of sulphathiazole tablets from Abbott Laboratories. There was a period of over nine months between the shipment of these tablets from Abbott Laboratories' factory in North Chicago to the retailing of these tablets. The retailer took tablets from the bottle, which was properly labeled and branded, and conveyed these tablets to the consumer in personal boxes which were not labeled to contain the proper and the required directions for use or warning of danger which appeared on the original label.

The majority opinion of the Court

Packaging Forum

By Josephine von Miklos

Only rarely does it seem to happen that an advertising agency has a hand in working with an outside designer. Every once in a while a designer does get a call from an agency. Every once in a while too, an agency's art director and, of course, the account executive, do work quite well with a designer. But most of the time the client makes his own choice and the agency doesn't see the finished product until it is ready to reach the market. In other words, it is as though there were a law that agencies and designers are the twains that shall never meet.

There are, of course, reasons for all this, and there even seems to be a certain advantage to it. Primarily, an agency shouldn't touch a package design (any more than a printer or box maker should) for the simple and basic reason that in most instances a packaging problem needs a fresh, objective and outside approach; the personal and individual energy, as it were, of a designer who will throw all he has into the problem and who remains unhampered by many of those other merchandising questions which so often cut down on courage and daring, and, consequently, taste.

Also, advertising art is only short lived in comparison with the life expectancy of a package design and is therefore conceived in a different vein. The whole creative psychology of advertising art makes it advisable to call a specialist for a package design.

However, and this is the whole point of this story, advertising art in many ways has to sell package design. And therefore it would add immeasurably to the quality, the understanding and the influence upon the consumer of both advertising and packaging, if the agency which so often decides or helps decide merchandising policy, had at least a cooperative hand in working with the designer.

This is not to say, agency people should tell the designer what to do. As a matter of fact, it has been proven time and again, that the merit of a package design seems to increase in direct proportion with the lack of advice from a client. (Although everybody seems to think they are experts in color, shape and design, it just doesn't seem to work out that way . . .) But it is to say that both advertising and packaging attempt to sell the same product; that they should, in some measure, be at least related to one another; and that the value of a new or revised design to the public would be vastly increased if an advertising campaign took note of it, rather than relegating it, as so often happens, to a little insignificant spot on the bottom of a page.

If package design has become a rather important expression of modern applied art (and we most emphatically believe it has), then it should be treated at least with a certain degree of seriousness, if not respect and consideration. And where could it get more of that than on those printed pages which carry, or are supposed to carry, a basic message to the great masses of consumers. Ever since packages have stepped out in front of the scene and have become items of decoration in the schemes of decoration, the need has arisen to give them attention and consideration in whatever message client and agency direct to the world.

BLUE... stops the eye... starts the sale

PACK TO ATTRACT IN

Maryland Blue

"Stop Shoppers"... see other side...

Stop shoppers

WITH RICH, ROYAL MARYLAND BLUE

MAKE your product stand out from the crowd . . . give it the appearance of quality . . . and you improve its opportunity for success in highly competitive markets. Many famous products are seen, recognized and bought more frequently because they are packed in rich, royal, "eye-stopping" Maryland Blue Glass. Here's why:

BLUE makes your product easier to see.
BLUE makes your product easier to remember.
BLUE makes your product smartly modern.
BLUE insures rich, distinctive appearance.
BLUE stands out, assures better display.
BLUE advertises your product in the home.
BLUE builds profits, steps up repeat sales.

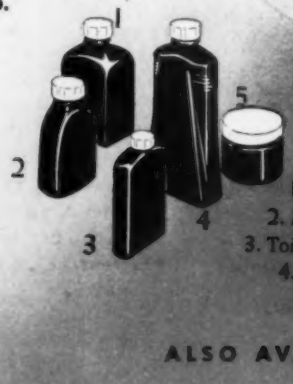
Write today . . . tell us the nature of your product and the sizes in which it is packed . . . and let us send you samples of appropriate stock designs. Or, if you use bottles or jars in large quantities, we'll be glad to create a special design for your exclusive use.

• • •

MARYLAND GLASS CORP.
BALTIMORE 30, MD.

PACK TO ATTRACT IN

Maryland Blue



Pictured on the preceding page
are just a few of the handsome stock designs.
This diagram makes them easy to identify.
1. Cabinet Square in ½ oz. to 32 oz. sizes
2. Maryland Oval in 1⅜ dram to 32 oz. sizes
3. Toilet Oval in ½ oz. to 8 oz. sizes
4. Chesapeake Oval in 4 oz. to 32 oz. sizes
5. Squat Jar in 2⅝ dram to 18 oz. sizes

ALSO AVAILABLE IN CLEAR GLASS

The Cosmetic Trend

Privately collected information leaves little doubt that toilet goods counters have shown considerable activity in the week following the Christmas sales and during the first part of January. Favorable forecasts for the Christmas season were well maintained and while the toilet goods counters seem to have fallen behind the approximate 10 to 12 per cent rise of all-over store volume, buyers feel that they can be satisfied with their annual results and that they have good promise to do better during the next months. It is pointed out in this respect that, even if many toilet goods counters may not have done much better than break even with 1946, this means nevertheless a very substantial volume of business. Nineteen hundred and forty six was an exceptionally active year for the counters, with record sales reported from all parts of the nation. A "recession," therefore, is not exactly a surprise. That the eventuality has been in the mind of many buyers and that this attitude may have been directly responsible for the somewhat unsatisfactory performance of many counters, is generally acknowledged. Poor planning has been a distinct handicap. The recovery of the latter part of the year was the direct outcome of a general improvement of the inventory situation. Stores were better prepared for toilet goods sales at Christmas time than during the largest part of the year. The more optimistic appproach to selling obviously has paid good dividends.

As stated, this is the experience of a selected number of department stores and may need modification when the more complete figures become available. However, there seems to be little doubt about the better sales performance of the counters in the new year. All-over sales reports show that the average rise of 9 per cent of 1947 sales volume over 1946 has been well maintained in the majority of stores. Toilet goods can be reasonably expected to have got their share of the general rise and have, therefore, made a good beginning.

Buyers discussing the spotty showing of their toilet goods and cosmetics counters, both those whose business has grown and those who have just held their ground, are inclined to think that last year's variations in the demand were due as much to the attitude of some of the larger cosmetic manufacturers as to the lack of enterprise of the stores. Evidence for this claim is found in the fact that, while the majority of the manufacturers has been playing a wait and see game, a few others who have gone forcefully after their market have made phenomenal successes. In turn, there has been more than the usual amount of the "show me" attitude on the side of the stores. As the result good opportunities were muffed all throught the year when toilet goods counters were doing good business next door.

Taking a bird's-eye view of the first weeks of the new year the Midwest and Southwest were leading the procession. Business in the South was good but has not developed any novelty trends. New England and the New York district had bad weather to contend with; but drops, while heavy in some instances and for several days, generally were followed by a quick recovery.

On the whole, cosmetic manufacturers seem to deal with a more receptive market than that of last year.

declared that the language used by Congress "broadly and unqualifiedly prohibits misbranding articles held for sale after shipment in interstate commerce, without regard to how long after shipment the misbranding occurred, how many intrastate sales had intervened, or who had received the articles at the end of the interstate shipments."

The majority held that the purpose of the Act was to insure federal protection until the very minute the articles passed into the hands of consumers. Whether this means that the original manufacturer at the insistence of retailers, will now be forced out of the bulk business, or whether he will have to furnish a large variety of unit packages for his retailer or agent suitable for his dispersing, and service, remains to be seen as this far-reaching decision is discussed and interpreted. It is evident, however, that manufacturers have a new and complex problem.

Advertising Memos

Proctor & Gamble plans to expand the sale of Shafta Creme Shampoo following a year's test in several city markets.

The Gillette Safety Razor Company will spend 6 million dollars next year to advertise the products of the Toni Company. Included here is a one million dollar campaign in newspapers to introduce Toni Creme Shampoo. The Toni Company will continue to operate under its present management. This new set-up gives Gillette a leading position in a mass, distributed product for men and a leading position in a mass, distributed product for women, both products flowing generally through the same type of retail store.

Bourjois is promoting a $1 package of Evening in Paris face powder and perfume with a 1,000 line and two 500 line ads in 50 newspapers.

Cutex polish remover and cutical remover are being offered to the trade in a combination deal that retails at 45 cents instead of the regular 60 cent value, both are packed in a new specially designed box.

Mennen is launching an extensive national advertising campaign for its castile baby soap mostly to reach mothers of new babies.

Guerlain is announcing the return of its colognes for Easter selling. The two are the fragrances "Shalimar" and "Mitsouko." Both come in 3 oz. bottles at $4.50 and 6 oz. size at $7.50

Whitehall Pharmacal Company reports that with the new "Jolly Kap" sales for Kolynos Tooth Paste showed an amazing increase of 233 per cent in sales. Made of plastic, the "Jolly Kap" is a little clown's head with a removable cap on top. This hat flicks down over the clown's face to release the tooth paste. The Kap screws onto the tube and stays there preventing waste and dried-up tooth paste where ordinary caps might drop off or get lost.

A combination creme rouge and eye shadow container made for Elizabeth Arden with plastic windows to show exact shades is announced by Crystal Plastics.

Faberge has packaged two colognes called "Cologne Duette." The two flacons are encased in a golden gift box with a snap over cover that can see reuse on the dressing table for jewelry, hairpins, etc. The items retail for $2.50 plus tax.

"Pink Ribbon" by Naylon is a new matched nail and lip shade packaged together priced at $1.60.

BRIDGEPORT

Metal Cosmetic Containers

Caps and Closures

Perfume and cosmetic manufacturers for more than a quarter of a century have recognized the precision craftsmanship of Bridgeport Metal Cosmetic Containers.

The consistent uniformity and beauty of our products has resulted in many leading manufacturers remaining as consistent users of Bridgeport Metal Containers.

When you are again planning a product that requires an original design be sure to examine the fine precision and decorative beauty of Bridgeport Products.

Bridgeport Produces

- Vanities
- Jar Caps
- Bottle Caps
- Lipstick Containers—Swivel, Slide, Automatic
- Dry and Paste Rouge Cases
- Powder Boxes
- Perfume Vial Cases and Caps
- Lip Brushes
- Drawn Talc Containers
- Miscellaneous Make-up Cases and Other Metal Specialties

THE BRIDGEPORT METAL GOODS MFG. CO.

Established in 1909

BRIDGEPORT, CONN.

PHONE: BRIDGEPORT 3-3125

John Hudson Moore has boxed in sets of threes and fours, gift sets of Sportsman Soaps. Each cake bears the insignia of a flying duck in base relief over the Sportsman signature. Prices range from $1.00 for three three-quarter oz. cakes to $2.00 for three 8 oz. cakes.

"Champagne," a powder shade launched by Yardley for the spring season. The company introduced the shade to harmonize with the new softly shaded makeup.

Pepsodent tooth paste is going to use testimonials again, but instead of using famous people will use success stories of career girls. Readers will be invited to submit their own testimonials and pictures for use at regular professional rates.

Castle of London Makes its Bow

Kent of London, the world famed British institution that has made an art of men's grooming since 1777, has announced the introduction to America of Castle of London, its English line of men's toiletries. Widely distributed in the British Isles, Castle of London is also making its appearance simultaneously in every country in the world. Castle of London is offering in smart, masculine packaging a line that includes men's talc, after-shave lotion, hair dressing, men's cologne, and a novel shaving bowl with a built-in styptic pencil for a handle. The packages are black diamond shape containers that offer easy handling and practical stowing. The items may be purchased individually or in combination packages.

This dual purpose shaving bowl by Castle of London is imported from England and contains in its handle a styptic pencil.

Handling P. M.'s

The P. M. seems to be gradually creeping up on most cosmetic manufacturers. One medium-sized house that has looked down its exalted nose on anything as common as push money, recently broke down and is now loudly proclaiming the beneficial results.

This company is using P. M.'s in an open and practical way. Every account is offered the P. M. This offer is made through the salesman who must have store consent either through the buyer or, if he has no authority, the merchandise or general manager. In the case of drug stores and chains, this must be owner or responsible management.

The salesman is also responsible for making sure the sales-girls in the section displaying his products know about the P. M. The amount paid is 5 per cent. This is paid either to the store or direct to the girl, whichever way the store prefers. Here again the salesman is supposed to watch the record.

Without regard to the rights or wrongs of P. M.'s, if they are paid, this seems a simple effective way of handling them.

Mergers for Economies

Many small manufacturers today are thinking wistfully of the economies that could be made in production, research, administration and particularly in distribution if they could merge or join in with some other manufacturers of a noncompetitive product. This is particularly true of the manufacturer who has one single speciality which may multiply production costs in an alarming way and cetainly makes it extremely difficult to maintain an adequate sales organization.

These manufacturers may lack capital to force quick expansion to a point where volume would take care of many of their troubles, or they may have a product where too much pressure or too quick a growth would mean that they were building on shifting sands.

At the present time, there is no way that manufacturers of this sort can meet with others of like mind for tentative discussions. Many do not wish to admit that they are willing to consider alterations in their status for fear that this will mean an expression of weakness or affect their prestige in their own little circle. While it would probably bring up many difficult political situations, the trade associations could offer some service in this direction. Even if this consists simply of a secret file of companies willing to discuss merging, or combining some phases of their business such as sales, research or production, and in this way simply provide a confidential basis of meeting for those expressing interest.

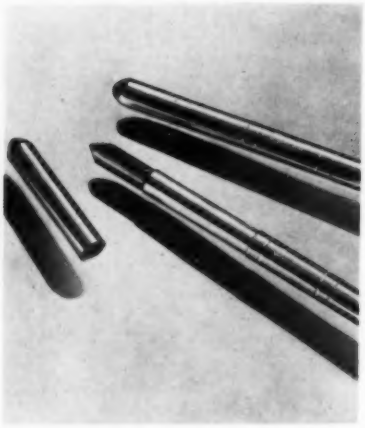
Hair Preparations Market

Richard Hudnut has introduced a home permanent wave. The new product will be distributed through department and drug stores and will be backed by national and cooperative advertising. Window and counter displays will be made available to dealers for point-of-sale promotion.

While the hair preparations market certainly appears to be a fertile field, it had been somewhat overlooked by cosmetic manufacturers. Hudnut evidently realized its potentialities and launched its hair beauty ritual package last spring—entering the hair preparations field for the first time in its long history. It is not surprising then, that Hudnut should go further into the possibilities of this market and come up with the home permanent wave kit.

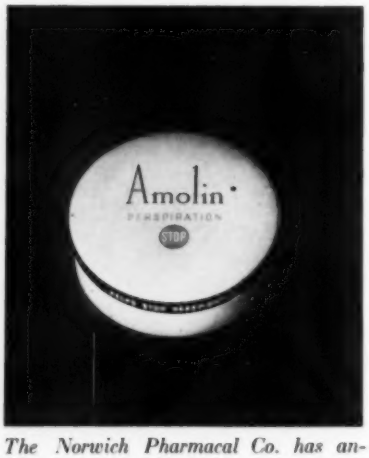
In making a survey of the market before launching its new product, Hudnut found some interesting facts. It was found that 83 per cent of all of the women questioned have had a permanent wave or some type at some time. There were 31 per cent of the women who stated that they needed a new permanent once in every five to six months, and on a cumulative basis, 40 per cent claimed that they need permanents at least once in six months. Twenty-seven per cent of the women interviewed had had home cold wave permanents at some time. This is

Richard Hudnut has introduced a new home permanent wave to be distributed through department and drug stores.



Revlon presents a new and longer lipstick called Lip Fashion, designed for easier application and eye appeal.

Prince Matchabelli's Easter Bonnet has perfume crowns in the crown—a doll-like hat in black and trimmed with veiling, conceals two miniature crown bottles of perfume.



The Norwich Pharmacal Co. has announced the introduction, on a national basis, of a new antiperspirant cream, Amolin Perspiration Stop.

really a fabulous figure for a market just barely scratched. Another interesting point brought out by the survey is that the 16-20 age group holds the largest single element of women who plan to use the home kit again in the future. The chief reasons that came to light for women not repeating the home permanent were that the permanent did not stay in long enough or that it did not take well. This may of course be due largely to the fact that the women did not follow instructions to the letter rather than to product weakness. A home permanent cannot be entirely successful if the instructions are not followed carefully and this point must be stressed at point of sale.

The fact that Richard Hudnut has foreseen the enormous possibilities of the hair preparations market is significant, and it will be interesting to watch the progress made.

Lip Fashions

Cosmetic manufacturers continue to dream up interesting new forms for that indispensable little gadget that every woman, or practically every woman, in America is familiar with—the lipstick.

Revlon has created Lip-Fashion. It is designed to style the lips with the greatest of ease. It is long and slender and practical, too, for it gives balance to the hand for application. The lipstick is not a lipliner, but an actual lipstick. The long, slim, polished gold-toned metal case is lovely to look at and fascinating to wield. Lip Fashion will be in department and drug stores in March at $1.50 retail.

Lucien Lelong's "Lip Service" is a neat trick, too. Lip Service combines a Lucien Lelong lipstick and a specially designed lucite applicator. These team mates are attached to each other by a fine guard-chain, so that when you reach for one, the other is close at hand to do complete beauty service to the lipsticks. The idea is to stroke the grooved tip of the applicator over the lipstick, very gently, sparingly. Then it is applied to the lips giving a neat, sharp outline. There are eight Lucien Lelong shades to choose from in the lipstick, in a fluted golden-tone metal case with the lucite contour-quill in a miniature sheath to match, packaged in a gift box of gold and white. Lip Service is priced to sell at $2 complete. And for real glamor, there is a 14K gold case at $250.00!

Lucien Lelong's lip service combines a lipstick and a specially designed lucite applicator attached to each other by a fine guard-chain.

Guerlain, Inc. has announced the return of Guerlain colognes for Easter selling. The colonge fragrances are Shalimar and Mitsouko.

Procter & Gamble has introduced Shasta shampoo, a beauty cream shampoo in a jar which promises luster, softness and manageability.

NEWS...

Heyden Buys Borden Co.

Heyden Chemical Corporation has purchased the minority interest of the Borden Company for an undisclosed sum of money and now owns more than

SIMON ASKIN

99 per cent of the stock of American Plastics Corporation.

Simon Askin, assistant secretary and assistant treasurer of Heyden is the new president of American Plastics. He succeeds William F. Leicester, of the Borden Company, who was elected to the post last year.

Local Tax Exemption Waived by Sterling

Sterling Drug, Inc., has waived a five-year exemption from local taxes by Gulfport, Miss., for its Charles H. Philips Company division that has just opened a new plant in that community.

"In order to attract new industry, many communities throughout the country are willing to waive local taxes as far as the new industry is concerned for a few years," James Hill, Jr., president of Sterling made known. "We, however, intend to pay our fair share of local taxes. It takes money to run a community, just as it takes money to run a corporation, and we expect to have made available to us police, fire, sanitation and other services as we may require."

The new Philips plant was located in Gulfport to take advantage of the climate and access to Southern and Latin-American markets.

Dr. Saunders to Tour West Indies

Dr. George M. Saunders, associate director of the medical department of Monsanto Chemical Company, has left for a three week leave of absence to study medical problems in Puerto Rico and the Virgin Islands for the U. S. Department of Interior.

Dr. Saunders has been associated with Monsanto since June 1947. He is also a member of the faculty of Washington University Medical School.

Dr. Geiter Appointed Medical Director

Dr. Clyde W. Geiter, industrial physician, formerly associated with Frederick Stearns & Company, division, Sterling Drug, Inc., as been named medical director of the George A. Breon & Company, Inc.

Dr. Geiter is widely known throughout the medical profession not only as a practicing physician but as an artist. His surrealistic oil paintings depicting disease and pathological conditions have attracted national attention.

A native of Philadelphia, where he was born in 1903, Dr. Geiter was graduated from the Creighton College of Medicine in 1931. After serving his internship at the Roxborough Memorial

DR. C. GEITER

Hospital, he started to practice in Detroit. He joined Stearns in 1933 developing their department of pharmacology and bacteriology.

Andrew C. Denny Retires

Andrew C. Denny, for the past several years director of professional services for Wyeth, Incorporated, has retired from the Company. His plans for the future have not been revealed.

Mr. Denny's official entry into the pharmaceutical world dated back to a small prescription pharmacy in Williamsport, Pa., in 1898. Unofficially, but we have it on very good authority, he was a very efficient bottle washer, oil lamp globe cleaner and general factotum. Mr. Denny's preparation for a career in pharmacy included daily practice in hitching up

ANDREW C. DENNY

the store horse and meeting the daily train. While he eventually acquired his state certificate as a registered pharmacist, he credits his basic pharmaceutical education more to practical experience than to formal schooling.

Upon qualifying as a pharmacist Mr. Denny acquired two drug stores in Pittsburgh and after that he undertook the sales management and ethical conduct of DeShell Laboratories in Chicago.

In 1926 he engineered the sale of DeShell interests to American Home Products Corp., and on their behalf established the Petrolagar Laboratories, Ltd., in England.

He returned to Chicago just prior to World War II, still with his American accent and assumed the vice-presidency of Petrolagar Laboratories, Bovinine and S-M-A Corporations. When these were merged into what is now Wyeth, Inc., Mr. Denny went to Philadelphia.

Cummings Joins Vitamerican

Harold F. Cummings has joined the Vitamerican Oil Corporation as vice-president in charge of sales. Mr. Cummings was formerly associated with Merck & Company in the administrative sales division.

milestones in PFIZER
CITRIC ACID PRODUCTION

1880 — Citric acid first added to the Pfizer line of highest quality chemicals, an illustration of Pfizer's policy of producing in America chemicals otherwise available only from Europe at that time. However, imported raw materials (citrate of lime and concentrated lemon and lime juice) were used.

1914 — Chas. Pfizer & Co., Inc. set up a special research laboratory for the purpose of producing citric acid from a sucrose material.

1923 — Chas. Pfizer & Co., Inc. first placed on the market citric acid prepared by the vegetative fermentation of *domestic sugar*.

1927 — Chas. Pfizer & Co., Inc. began full scale production of citric acid from domestic sugar, discontinuing use of all other crude citrate material.

1927-48 — Price of citric acid dropped from $.45 a pound to less than half that figure, further widening its use in foods, beverages and pharmaceuticals and as an industrial chemical.

Citric acid is one of more than a hundred Pfizer chemicals serving man's well-being . . . embodying the highest standards of manufacture—standards that are part of a firmly-maintained policy which dates from the company's founding in 1849. Chas. Pfizer & Co., Inc., 81 Maiden Lane, New York 7, N. Y.; 444 West Grand Ave., Chicago 10, Ill.; 605 Third Street, San Francisco 7, Calif.

6280

PFIZER *Manufacturing Chemists since 1849*

Addelston Upped by Winthrop-Stearns

Arron Addelston, formerly associate director, has been made director of the special chemicals division of Winthrop-

AARON ADDELSTON

Stearns Inc. Bernard M. Fisher will serve as his associate.

The division handles bulk chemicals and also the non-pharmaceutical products of the former Frederick Stearns & Co., division. These former Stearns products will be manufactured under the direction of O. P. Eyre, formerly with Stearns.

Mr. Addelston has been associated with Winthrop since 1944. From 1936 to 1942 he was science editor of Drug Trade News and Drug Topics.

N. Y. Academy Elects Three

Three scientists of Merck & Company, Inc., have been elected Fellows in the New York Academy of Sciences.

The new Fellows are Dr. Rudolf E. Gruber, vice-president and director of foreign relations. Dr. T. J. Webb, director of physical and inorganic chemical research, and Dr. Max Tishler, director of development research.

Jobakr Cosmetics Formed

A new cosmetic company has been established known as Jobakr Cosmetics, founded by J. B. Krull. It is located at 26 Washington St., South Charleston 3, W. Va., and 210 Fifth Ave., New York 10.

Indian Exporter

Ratilal Nathubhai & Company, Podar Building, Sandhurst Rd., Bombay, India, exporters of all types of Indian produce including drugs, herbs and spices are interested in contacting importers and manufacturers in this country.

McKesson & Robbins Set Up New Dept.

Establishment of a bulk chemical distributing department in the Chicago division of McKesson & Robbins, Inc., has been announced by F. Dean Hildebrandt, vice president in charge of the company's chemical division.

Manager of the new department is Lee Enberg, graduate of the University of Louisiana, formerly technical sales representative of Merck & Co. and chief chemist, Carey Salt Co., Hutchinson, Kan., who joined the chemical division in 1946. Assistant manager is C. J. Turniff, who joined the company in 1946 after his discharge from the Army Chemical Warfare Service as a Major.

Kaufhold Elected VP of Sales

Election of Donald S. Kaufhold as vice-president in charge of sales of the American Ferment Company, Inc.,

DONALD KAUFHOLD

has been announced by John M. Hawkins, president.

Joining the company in 1941, Mr. Kaufhold has served as detail man, director of the professional service department and sales manager.

BIMS Annual Dinner

The annual dinner held by BIMS at the New York Athletic Club January 22 was one of the most successful in years since for the first time in several years members were allowed to bring guests.

Lee Ramsdell & Co.

Lee Ramsdell, Jr., and John R. Swain have set up a company whose name is Lee Ramsdell & Co., 1612 Locust St., Philadelphia 3. The company is taking over contracts for drug or medical clients now being serviced by John Falkner Arndt & Co.

Poses Sails for France

Jack L. Poses, president of Parfums d'Orsey sailed for Paris January 21 to complete arrangements for the American debut of Divine perfume which is scheduled for sometime this year. Mr. Poses will stay abroad about a month and will visit perfume oil fields and sources of supply in the south of France and Holland.

Hogan to Represent Guerlain

Frank J. Hogan has been appointed representative for Guerlain, Inc., in the territory of New England, New York, Pennsylvania, and Ohio, excluding Philadelphia and Metropolitan New York. Mr. Hogan will work under the direction of the company's sales manager, E. K. Stoyanoff.

Plastic Conference Set for March

The West Coast section of the Society of the Plastic Industry will bring together leaders of the industry from all parts of the country for the section's annual conference and exhibit at Santa Barbara, Cal., March 28-31, at the Hotel Biltmore.

Conference chairman is Herbert G. Pratt, of American Cyanamid Co. Grant Ehrlich of Resin Industries is coordinator for the committee..

Pediaform Labs. Inc.

Pediaform Laboratories, Inc., 506 Santa Monica Blvd., Santa Monica, Calif., has announced the incorporation of the company, with Frank L. Petru,

FRANK L. PETRU

president, J. F. Weiner, vice-president and O. L. Frye, treasurer.

Pediaform Laboratories was formed in 1947, by J. D. Wiener for the purpose of manufacturing a complete line of children's medicines in children's doses.

Bland Named Sales Mgr. of Grove Labs.

James H. Grove, president of The Grove Laboratories, Inc., St. Louis, has announced the appointment of

ARTHUR BLAND, JR.

Arthur S. Bland, Jr., as sales manager of the company.

Mr. Bland came to Grove in 1945 as market research director. He became merchandising manager in 1946, and assistant sales manager early in 1947. He is a graduate of Princeton University.

DCAT Mid-Winter Meeting

The Drug, Chemical and Allied Trades Section of the New York Board of Trade held a luncheon January 27 at the Hotel Astor.

The speaker was Wallace Werble, editor of "F-D-A Reports," one of the best informed men in Washington on the problem in this industry.

Two Monsanto Men to Study at Harvard

Monsanto Chemical Company has announced that Walter C. Thilking has been awarded a leave of absence to attend the advanced management program at the Harvard University School of Business Administration.

Mr. Thilking will enroll with Louis F. Loutrel, Jr., who goes in place of Charles H. Sommer, Jr., previously announced for the award. Mr. Sommer's enrollment was deferred because of the pressure of business.

Mr. Thilking, assistant to the comptroller has been with the company since 1933. He was appointed assistant comptroller in 1937.

Management leaves of absence for the Harvard program were instituted by Monsanto in 1946. To date, four other Monsanto executives have received awards.

Sartorius Named V. P.

John M. Sartorius has been elected by the board of directors of Reed & Carnick, Jersey City, as executive vice-president and a director.

He graduated from Princeton in 1942 and from there was appointed a Second Lieutenant of Field Artillery. He was in Europe and took part in the fighting in Belgium and Germany.

At the same time it was announced that Bernard Jeffs, assistant vice-president has been made vice-president in charge of sales and advertising.

Winthrop-Stearns Sales Staff Changes

A number of important promotions in the professional service organization of Winthrop-Stearns Inc., have been announced by Joseph G. Noh, vice-president in charge of sales.

Thomas J. Winn, formerly manager of the division office in Ft. Worth, has been appointed manager of the retail sales division at New York, replacing William LeBar, named manager of hospital sales. He is being succeeded in Ft. Worth by Claude M. Demarest, formerly assistant manager of the New Orleans office.

Thomas G. Bradley, recently assistant manager in Hartford, Conn., has been named manager of the merchandising division in the New York office. He succeeds Ernest E. Bartimmo, who has been made manager of the professional service division.

Dr. Newkom Advanced by Cutter

Elizabeth H. Newkom, M.D., has been named director of clinical research at Cutter Laboratories, Berkeley, Calif. A native of New York, she graduated

DR. E. H. NEWKOM

from the Long Island College of Medicine. During the war Dr. Newkom was medical supervisor of high altitude research for Sperry Gyroscope Company, and for the past two years she has done special research for Cutter.

Joins Northam Warren Corp.

Henrietta Amos has joined the Northam Warren Corporation as promotion-publicity director of Peggy Sage and Cutex.

Miss Amos has been with Abbott Kimball Company, for the past four years as director of cosmetic publicity.

Elmer Sheets, editor, Beauty Fashion, Henry Callahan, display director, Lord & Taylor, and Dorothy Hay Thompson, beauty editor, Harpers' Bazaar, were the judges of the Charles of the Ritz Christmas window display contest.

Gray Appointed Gen. Sales. Mgr.

R. E. Gray, who was appointed general sales manager of the newly formed Centaur-Caldwell division, was elected assistant secretary of Sterling Drug, Inc.

R. E. GRAY

Mr. Gray first became associated with Centaur in 1931 as a salesman. He was made sales manager in 1945. A native of Greensboro, N. C., he attended Guilford College.

Dr. Hanford in New Post

As a focal step in streamlining the extensive technical and laboratories of the M. W. Kellogg Company, process engineers, H. R. Austin, president of the company has appointed Dr. W. E. Hanford to the new post of director of petroleum and chemical research. Dr. Hanford joined Kellogg in 1946, going to that company from General Aniline & Film Corporation.

Latin American Survey

To survey marketing, merchandising and sales conditions in the Latin

RICHARD T. TURNER

American pharmaceutical and allied fields, Richard T. Turner, editor of El Farmaceutical has gone on a seven week tour of seven Southern American Republics.

Pennsalt Names Cox Assistant Sec.

Warner R. Over, secretary and treasurer of the Pennsylvania Salt Manufacturing Company, has announced the appointment of Thomas W. Cox as assistant secretary of the Company.

The appointment of Mr. Cox follows the retirement of U. Grant Beath, after 47 years service with the company.

Sheffield Succeeds Speiden

W. H. Sheffield, Jr., secretary and member of the board of directors of Innis, Speiden & Company, has been elected a director of the Chlorine Institute for a two-year term.

W. H. SHEFFIELD

His election fills the vacancy left by Eben C. Speiden, vice-president and works manager of the Isco Chemical division of Innis, Speiden & Co., who retired from active duty as works manager in January. Mr. Speiden served as president of the Institute from 1924 to 1934. From that date until his retirement he has been vice-president of the association.

Pan-Americana Opens New Show Room

Pan-Americana Cosmetic Company has opened a new show room and sales office at 3706 North 11th St., Milwaukee 6, Wis. Benn Ollman is in charge of all sales and promotion.

Morss Elected Director

Everett Morss, president of the Simplex Wire and Cable Company, has been elected to the board of directors of Arthur D. Little, Inc., Cambridge, Mass. Mr. Morss' election represents the second generation of his family's association with the Little organization since his father was also a director of the company. Mr. Morss replaces as director, Governor W. Cameron Forbes, who resigned after twenty-five years on the board.

Stanton President of Perfumers

George H. Stanton, assistant division manager of U. S. Industrial Chemicals, has become president of the Chicago Perfumery, Soap and Extract Asso-

GEO. H. STANTON

ciation. Other new officers are: James T. Leavitt, Wm. J. Hough Company, vice-president; James L. Johnson, G. Barr & Company, secretary; J. C. Browing, Commercial Solvents Corporation, treasurer.

Ziegler Adds H. W. Kraaz

G. S. Ziegler, general manager of the G. S. Ziegler & Company, has announced the appointment of Heinz W. Kraaz as manager of the wax division.

Mr. Kraaz has long been identified with the wax business and recently resigned as vice-president of the wax and oil division of the Allied Asphalt and Mineral Corporation.

H. K. Hastings a wax chemist and for some years associated with Mr. Kraaz has also joined the Ziegler organization, he will be in charge of wax production at the New Market plant under Donald C. Nelson, general production manager.

H. W. KRAAZ

Another addition to Zeigler's staff is Walter A. Chaskel, formerly in charge of the Natural Wax Division of the War Production Board in Washington, D. C.

Gathering civet from pouch of civet cat—in Abyssinia.

CIVET...

Highest Quality

IN STOCK AGAIN FOR IMMEDIATE SHIPMENT

Good news for our customers! Your needs for civet can be supplied without delay from our stocks in New York. In original horns, this is the same civet—unexcelled in purity and dependability—that leading perfumers preferred before the war.

Write or phone for quotations. Samples if desired.

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DIVISION OF UNITED STATES RUBBER COMPANY

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LOS ANGELES • TORONTO • MONTREAL

Sole Distributors for: BRUNO COURT, S. A., GRASSE, FRANCE — C. A. P. P., CASABLANCA, MOROCCO

Dr. Vanderkleed Honored

Dr. Charles Edwin Vanderkleed, vice-president and scientific director of McNeil Laboratories was awarded the Procter Award Medal established by

DR. C. E. VANDERKLEED

the Philadelphia Drug Exchange at its eighty-seventh annual dinner January 29.

Dr. Vanderkleed was given this honor for his contributions in the fields of pharmaceutical and chemical control and as a pioneer in physiological chemistry.

Dr. Sepulveda Gets Squibb Fellowship

An investigation of nutrition as related to the degeneration of the liver will be carried out under a special Squibb fellowship in therapeutic research granted to Dr. Bernardo Sepulveda of Mexico City, who is chief of service at the Hospital deEnfermedades de la Nutricion in Mexico City.

The announcement of the appointment was made by Dr. James A. Shan-

DR. BERNARDO SEPULVEDA

non, director of the Squibb Institute of Medical Research, there are two purposes of the research program for which the fellowship was granted: first, to learn with the greatest possible accuracy the role of nutritional deficiencies in creating the high incidence of hepatic cirrhosis observed in Mexico, and, to confirm the value of diet and dietary supplements in the treatment of cirrhosis.

Dr. Sepulveda is consultant in Gastroenterology at the Institute Nacional de Cardiologia. He teaches now at the School of Medicine of the Universidad Nacional Autonoma and in its graduate school.

Varley & Sons Inc.

James Varley & Sons, Inc. is the new name for the firm formerly known as Baird & McGuire, Inc., of St. Louis. Since 1936 the Varley interests have controlled Baird & McGuire and recently made the name change to avoid confusion.

Jack Varley, vice-president of the company, stated that there will be no changes whatever in personnel, policies, or method of operation.

Purepac Closes Chicago Office

Purepac Corporation has announced that it has closed its Chicago office. In a move to centralize sales department activities at Purepac's main office in New York, C. R. Meyers, vice-president, formerly in charge of the Midwestern division has been transferred to New York. Mr. Meyers will continue to be responsible for activities in the middle and Southwest.

Cal. Cosmetic Assn. Elections

The California Cosmetic Association, Inc., has announced the election of the following officers: President, Arnold L. Lewis of Howe-Lewis, Inc.; first vice-president, Sterling F. Mikeselle, Mikeselle Laboratories; second vice-president, Alan Coghlan, Nethercutt Laboratories; treasurer, Carl Mitchell, "42" Products, Ltd.; secretary, Miss Gene Salee, Gene Salee, Inc.

CCDA Plans Meeting

The Commercial Chemical Development Association is scheduled for a meeting March 10 in New York. According to Dr. L. B. Hitchcock, president of the association and vice-president of Quaker Oats Company special consideration will be given by authorities in their fields to techniques which must be employed in development of a new product.

Douglass Named Radio Co-ordinator

W. L. Sims II, vice-president in charge of the foreign department Colgate-Palmolive-Peet Company, has announced the appointment of James

JAMES C. DOUGLASS

C. Douglass as radio coordinator for that department.

A veteran radio program director, Mr. Douglass, during 1946-47, was production manager of the Company's radio unit in Sydney, Australia. In that capacity he was engaged on six Colgate radio shows which were among the 10 top-rated programs in that country.

Jacqueline Cochran Incorporates

Jacqueline Cochran has announced that her cosmetics firm has been incorporated and that William M. Holmes former president of Bonwit Teller, Inc., has been elected chairman of the board. Miss Cochran will be president.

Jacqueline Cochran, Inc., is the name of the new firm.

Mr. Holmes has spent all of his business life in the merchandising field.

WILLIAM M. HOLMES

He joined Bonwit Teller in 1935 as vice-president and general manager. In 1940, he was named president and he held this position until his retirement in 1947.

Dr. Brown Promoted

Harold W. Brown, M.D., medical director of Murray Breese Associates, Inc., has been elected to the office of vice-president. Dr. Brown formerly

DR. H. W. BROWN

was for several years medical director for an eastern pharmaceutical house and consultant for a number of pharmaceutical manufacturers.

Evelyn Corper Heads Sales Promotion

Evelyn M. Corper has been appointed sales promotion manager of the Centaur-Caldwell division, Sterling Drug, Inc.

Miss Corper assists Edward L. Marschner and R. E. Doolittle, divisional vice-presidents, in directing programs for the eighth Centaur-Caldwell products.

She was formerly associated with Dr. D. Jayne & Sons, Inc., for 13 years, and was its advertising and sales promotion manager for the past 6 years.

Owens-Illinois Changes

Charles M. Dooley has been appointed manager of the merchandising and consumer divisions of the glass container division of Owens-Illinois Glass Company.

Mr. Dooley joined Owens-Illinois four years ago in the merchandising division. Later he was made manager of the market and consumer research division.

Appointment of Walter D. Plummer, Western regional market development manager, as Mr. Dooley's assistant was also announced. He is succeeded in Chicago by Richard R. Fowler, merchandising manager of the beverage industries divisions.

Another move saw Charles E. Deger promoted to the position of market development manager for the Central and Southeastern region with headquarters in Toledo.

Roma Lind Introduces New Items

Roma Lind Inc., a new cosmetic firm, 177 North State St., Chicago, announced that a new line will be offered shortly. Items include a transparent beauty masque, a hormone cream, and an all purpose cream.

The head of the company, Roma Lind, began her career as a professional model. She was with Montgomery Ward, traveling the country training its sales personnel in personality development. Later she did the same type of work for department stores and was associated with the William T. Knott and the Arkwright Merchandising organizations.

McQuarrie Made Sales Mgr.

Evan D. McQuarrie has been named sales manager for the Western Pharmaceutical Company.

Gorman and Rockafellow Advanced by Searle

Two advancements in the organization of G. D. Searle & Company, have been announced. Joseph K. Gorman was advanced to the position of assistant vice-president, and George B. Rockafellow was made secretary.

Mr. Gorman joined the Searle Company in 1938 and for the past several years has been assistant secretary and purchasing agent, a position he will continue to hold. Mr. Rockafellow became associated with the company in September as controller.

Searle Named by Eaton Labs.

William A. Searle, Jr., has been named director of medical sales promotion for Eaton Laboratories, Inc., subsidiary of Norwich Pharmacal Company.

WILLARD A. SEARLE

Hill Leaves Johnson & Johnson

Ending 30 years service with the company, Arthur B. Hill has retired as vice-president and general sales manager of Johnson & Johnson.

Mr. Hill joined the company as a salesman in 1918 and after advancing through several divisional managerships, he was appointed manager of field sales forces in 1932 and promoted to vice-president in 1938.

At the present no successor has been selected. E. E. Dickson will continue as vice-president in charge of hospital sales, John F. Kiley as acting manager of general line field sales forces, and E. G. Gerbic as director of merchandising.

Dr. Neil P. Macphail, United Fruit Company, (center) receives congratulations from Dr. Justus B. Rice, Winthrop-Stearns Inc. on receipt of Richard P. Strong Palladium Medal for distinguished service in tropical medicine. Dr. Thomas T. Mackie, president of the American Foundation for Tropical Medicine, sponsoring the award, looks on, at right.

Carlson Appointed by P. & S.

Benjamin d'Ancona, secretary of Polak & Schwarz, Inc., has made known the appointment of L. H. Carlson as sales representative covering Detroit,

L. H. CARLSON

Cleveland, Buffalo, Rochester and New York.

Mr. Carlson has served the drug, food and cosmetic trade in this territory for 25 years. He is a graduate of the Sheffield Scientific School of Yale University. He served as a Lieutenant with Chemical Warfare during World War I and was research organic chemist with Frederick Stearns & Company.

Cosmetic Course

Leaders in the cosmetic industry are participating in a survey course being given during the spring term by New York University's division of General Education. The course meets fifteen successive Tuesday evenings, from 6 to 8 P. M. and started February 17.

J. George Fiedler of Kelton Cosmetic Company is permanent chairman. Guest lecturers include: Louis Amsterdam, Van Ameringen-Haebler, Inc.; Herman Brooks, president, Alexandra de Markoff, Inc.; James Hall, Whittaker Clark and Danniels, Inc.; Dr. Harley A. Haynes, Jr., City Hospitals, Akron, Ohio; Harry Hilfer, The Emulsol Corp.; Dr. Paul Lauffer, George W. Luft Co.; Dr. Emil G. Klarmann, Lehn & Fink, Inc.; Gilbert Miles, Colgate-Palmolive-Peet Co.; McKay McKinnon, FDA; Abe Rosenbaum, The Durlin Co.; Dr. Walter A. Taylor, Ponds Extract Co.; Dr. Everett G. McDonough, Evans Research and Development Corp.

Fee for the course is $25. More information on the course may be secured from the Division of General Education, New York University, 100 Washington Square.

Johnson Named Asst. Secretary

Reverdy Johnson has been appointed an assistant secretary of Merck & Company, Inc., it has been announced by the board of directors.

Before joining Merck in 1941, he was associated with the law firm of Edwards, Bower & Pool, New York.

Ess. Oil Assn.

At the annual meeting of the Essential Oil Association of USA, held January 9 the officers of the Association were elected. President, Wm. Schilling, Jr., Norda Essential Oil & Chemical Company; Vice-president, Hanz P. Wesemann, Fritzsche Brothers, Inc.; Secretary-treasurer, R. B. Magnus, Magnus, Mabee & Reynard, Inc.; Frederick G. Buehler, George Lueders & Company, Inc., and Gerard J. Danco were elected to the executive committee.

Winthrop-Stearns Promotes Clark

William X. Clark has been promoted to the position of sales manager of the special markets division of Winthrop-Stearns Inc., P. Val Kolb, vice-president has announced.

Mr. Clark has been with the division since April 1942. He first became associated with Sterling Drug Inc., as assistant sales manager of Fairchild Brothers & Foster.

Coleman Joins Evans Research

H. Roger Coleman has joined the staff of Evans Research & Development Corp., New York. He will devote most of his time to technical market surveys that have become an important phase of research laboratory management.

H. R. COLEMAN

Mr. Coleman was formerly manager of the special products division of General Aniline and Film Corp., and more recently has been an independent consultant in powder metallurgy.

Watkins Co. Consolidates

With new equipment still being added to take care of increased production, the R. L. Watkins Company Division, Sterling Drug, Inc., is now manu-

ROBERT EKELMANN

facturing 20 different products in the plant once shared with what is now the Centaur-Caldwell Division.

All manufacturing operations have been placed under the direction of Robert R. Ekelmann, who has been named general factory manager. Laurence Anderson, formerly Centaur's production manager, is now production co-ordinator, and Walter MacCormack, former Centaur superintendent, is general superintendent of manufacturing.

Named Asst. Comptroller

Joseph H. Urban has been elected assistant comptroller of Bristol-Myers Company, by the board of directors. Mr. Urban is a graduate of New York University and joined Bristol-Myers in 1935.

Greenewalt Heads Du Pont

Walter S. Carpenter, Jr., has resigned as president of E. I. du Pont de Nemours & Co., and has been elected chairman of the board. In his place Crawford H. Greenewalt, who at 45 becomes the tenth president of the company in the organization's 146-year history.

Mr. Carpenter became president on May 20, 1940, capping a career that began in 1907, he was the second man not to have the Du Pont name to have occupied the presidency of the company.

Mr. Greenewalt has behind him more than a quarter century experience in various capacities with the company. It was in 1922, following his graduation from M. I. T., that he became a chemist in the DuPont Philadelphia Works.

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by STANTON

The impressive sales records established by us in the previous year indicates the high goal which discerning cold wave manufacturers have set for their finished solutions.

Our recognized high standard "thio" is in such increasing demand in the cosmetic industry that our facilities have been greatly expanded so that all may be served in the coming year.

We invite your inquiries.

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227 Krams Avenue, Philadelphia 27, Pa.

Lueder's Veterans Organization

William F. Kammerer, manager of the Chicago branch of George Lueders & Company, Inc., was welcomed as the thirty-ninth member of the Veteran's Organization, which is made up of employees who have been with the company 25 years or more.

Of the 39 members in the organization, three can boast of over 50 years with the company, while several more are approaching the half century mark.

Hilfer to Represent Emulsol

The well-known cosmetic chemist and consultant, Harry Hilfer has been chosen to represent the Emulsol Corporation in its promotional activities in the cosmetic and pharmaceutical industries in the New York and Eastern New Jersey areas.

Two Honored by N. Y. Academy of Science

The New York Academy of Medicine at its 130th annual meeting honored Drs. Erwin Achwenk and Richard Tislow of the chemical research division of Schering Corporation.

The Schering scientists was elected to Fellowship in the Academy, an honor which is conferred on a limited number of members of the group.

Middlebrooke Appointments

L. E. Macy, head of Middlebrooke Lancaster, Inc., Bklyn., has announced the appointment of the following representatives:

Irving Kaskel will contact clients in the mid-west. Leonard William in the East, Robert Jackson in the Southwest, Marvin Korans in the Southeast, and Sam Feldman will represent Middlebrooke in California.

Bass Elected V. P.

Dr. Lawrence W. Bass has been elected a vice-president of U. S. Industrial Chemicals, Inc., however, he will continue as the company's director of research and development.

Dr. Bass was educated at Yale and received a Ph.D. degree in 1922. Later he studied at the Sorbonne, and the Pasteur Institute in France. Dr. Bass was a member of the scientific staff of the Rockefeller Institute for medical research from 1925 to 1929, and executive assistant at Mellon Institute of Industrial Research from 1929 to 1931.

During the recent war he headed a committee of the National Research Council which handled technical projects for the Quartermaster Corps.

Schiffender Promoted

D. J. Schiffender has been appointed New York regional sales manager of Johnson & Johnson, it has been announced by George Smith.

Mr. Schiffender joined the firm in 1927 as a salesman in Milwaukee. He was mid-west divisional manager in 1930 and was transferred in 1937 to New York as divisional manager of that area.

Almay & Schieffelin Personnel Changes

Robert T. Bacheller, formerly advertising manager of the laboratory division of Schieffelin & Company, has been appointed general manager of Almay, Inc.

Stanley Bendetson, has been engaged to fill Mr. Bacheller's position as advertising manager of the division.

Albert V. Roche, Jr., has been named professional service supervisor and John Byron, formerly laboratory division sales representative for Eastern Massachusetts has been promoted to Eastern District supervisor for the company.

Josiah Lilly

Josiah Kirby Lilly, chairman of the board of directors of Eli Lilly & Company died February 8 in Indianapolis after a long illness. His age was 86. He was one of the four original employees of the firm founded in 1876 by his father Eli Lilly, and was its president from 1898 until 1932.

Mr. Lilly was co-founder of the Indianapolis Foundation and the Purdue Research Foundation. In 1942 he received the Remington Medal for distinguished service to pharmacy.

Mr. Lilly married Lily Ridgely in 1882. She died in 1934. He than married Mrs. Lila Allison Hume in 1935. Two sons of the first marriage are executives of the Lilly firm. They are Eli Lilly, president, and Josiah K. Lilly Jr., executive vice president.

Dr. Lipschitz-Lindley

Dr. Werner Lipschitz-Lindley, fifty-five, who recently discovered a new group of diuretics, died February at his home in Pearl River, N. Y.

Born in Berlin, Dr. Lipschitz-Lindley was head of the department of pharmacology at the University of Frankfurt from 1923 until Hitler rose to power, at that time he went to Turkey, where he was head of the Institute of Bio-chemistry at the University of Istanbul.

He came to this country in 1933 and for the last eight years had been employed as a research pharmacologist with Lederle Laboratories.

Surviving are his wife, two sons and mother.

Louis Roure

Louis Roure one of the leaders of the French perfume industry died at his home in Paris December 26.

He was chairman of the board of Societe Anonyme des Etablissements Roure-Bertrand Fils et Justin. Born in 1876 in Grasse he later went to the College of Grasse and entered the firm in 1898.

J. F. Roten

Julius F. Roten, vice-president and director of L. Sonneborn Sons, Inc., died January 24 at Mount Sinai Hospital in New York. He was 59.

Mr. Roten joined the company in 1905. An authority on petroleum derivatives, he was instrumental in the development of methods of refining white mineral oils, petrolatums. He was also active in promoting the development and distribution of motor oils, textile processing specialties, and products used for building construction.

He is survived by his wife, a son and daughter.

Norman H. McLeod

Norman H. F. McLeod who has served in various capacities with Parke, Davis & Company, died January 13 at Ford Hospital, Detroit. He was 72 years old.

Born in London, Ontario, he began his business career at the Canadian Bank of Commerce in Toronto. In 1906 he joined Parke, Davis as assistant auditor, becoming auditor in 1916 and treasurer and board director in 1921. He later served as secretary and was elected vice-president and treasurer in 1945. He retired from the firm in 1946. His widow, Maud and two daughters survive.

Joel H. Foy

Joel H. Foy, who was board chairman of the Maltbie Chemical Company died January 7 after a prolonged illness. His age was 81.

Mr. Foy joined the Maltbie Chemical Company in 1899 and was associated with B. L. Maltbie and Mr. Warner in building up the organization. He was president of it in 1924-25.

"It's a darn good machine"

We often hear this from users of "PACKAGE" machines. Sometimes it comes from the operator or plant superintendent. Often from the man at the top of the organization.

Like some people you know and admire, "PACKAGE" machines are "easy to get on with"—don't require pampering. That impresses a user right away . . . They're dependable—don't let you down when you need them most . . . Accommodating—easily adaptable to new wrapping requirements and different types of wrapping materials . . . Quickly adjustable—for many package sizes. And they have a reputation to *maintain*. For "PACKAGE" wrapping machines have served America's leading package goods manufacturers for over 30 years. Served so well that they are used exclusively in plant after plant. In fact, they wrap 80% of all the machine-wrapped products in the U. S. A.

It's good sense to judge a machine as you do a man—*on performance and reputation.*

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Packages that SELL...wrapped on machines that SAVE

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SEATTLE TORONTO

Production Forum

By Francis Chilson

Industrial Consultant

Technological Decline in Britian

Technological stagnation in Great Britian is both a warning and a lesson to the United States, William J. Kelly, president of the Machinery and Allied Products Institute has pointed out in a report on technological efficiency in England recently completed by the Institute.

The average industrial worker in England produces only about one-third as much as the average American, and because of antiquated equipment and production methods, labor requirements per unit in some processes are eight times as great in England as in the United States.

In a comparison of twenty-five industries it was found that output per worker is greater in all cases in this country than in England, and in many instances it is three or four times as great. On the basis of output per man-hour the contrast is even sharper, because the English work week is longer.

There are no grounds for American smugness or complacency, however, Mr. Kelly said, because many of the causes of the British technological decline are present in the United States also.

The Institute's statistics on British industry are all from British sources, principally reports of "working parties" composed management, labor and independent representatives, set up for the principal industries by Sir Stafford Cripps when he was president of the Board of Trade in 1945. These various groups studied each industry and report as to what steps should be taken in the national interest to strengthen industry and render it more capable of meeting competition in the home and foreign markets.

For example in coal mining output per man shift in 1936 was 2,350 pounds in England as compared to 8,740 pounds in the U. S., 3,620 in Poland, 3,590 in Holland, and 3,370 in the Ruhr. Increase in output per worker in the preceding decade was only 14 per cent in Britian compared to from 54 to 118 per cent in other principal coal producing countries.

Investigators found that in lace making, no new machines whatever have been installed since 1923. And in light clothing factories probably the majority of sewing machines at present in use are from thirty to forty years old. Output of shoes per man-hour is 102 per cent greater in the U. S. than in England. The average iron and steel worker in the U. S. produces four times as much as the British counterpart.

Drawing largely from reports such as these, and making comparisons with American industry, the Institute points out that the economic difficulties in which Great Britian now finds herself are due in no small measure to the backwardness of her productive technology and that America is by no means immune to the degenerative processes that have sapped the vitality of industry overseas.

Regarding the low rate of meachanization in British industries it has in some cases led to more or less of a vicious circle. The equipment manufacturers, restricted to a starvation diet, are unable to spend money on research and development, hence their product stagnates. This stagnation in turn tends to justify their customers in holding on to the old machines, thus confirming the dearth of demand. The decline in Great Britain has been self-evident and it can happen in this country unless we take warning and heed the British experience, and encourage rather than discourage new and better processes and technological equipment.

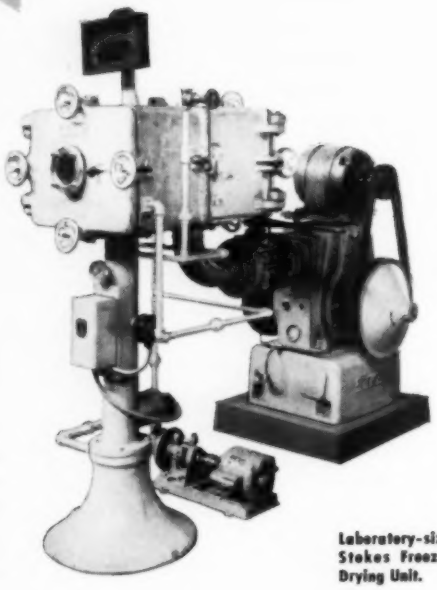
Silent Sound or Spray-Drying

Sound waves, although an old story to Navy men who used them for tracking down Nazi submarines during the war, are finding use as a new tool in the nation's factories and laboratories.

The familiar sound wave that usually brings to the

STOKES
FREEZE-DRYING EQUIPMENT

FOR SMALL-SCALE OR LABORATORY PROCESSING



Laboratory-size Stokes Freeze-Drying Unit.

or

Part of a Stokes Freeze-Drying Unit for large commercial production.

LARGE-SCALE VOLUME PRODUCTION

Stokes was one of the pioneers in developing both the method and the equipment to make freeze-drying under high vacuum commercially practical for the preservation, without refrigeration, of viruses, penicillin, streptomycin, vitamins, serums, amino acids, other biologicals, chemicals, pharmaceuticals, and chemotherapeutics.

Today over 300 Stokes Freeze-Drying units are in use in laboratories, hospitals, universities, government health services and commercial plants in the United States and more than 25 foreign countries.

We engineer and manufacture complete equipment for the process. Although "package type" units are supplied where suitable, many of our installations are custom engineered. Facilities and technical assistance are available for research, development and application. A complete pilot plant in the Stokes Laboratory is used for tests and demonstrations. We invite your consultations. Write for catalog No. 455A.

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F.J.Stokes **PHARMACEUTICAL EQUIPMENT** FJS Est. 1895

ear anything from a whisper to a whistle is being intensified and amplified to help manufacture black carbon, recover lost chemicals, purify "sour gas" and hurry the drying of drugs and soap.

In the case of the last named, Ultrasonic Corporation, is installing a new sound machine in the plant of a soap maker to aid in spray-drying soap. Powerfull high-pitched sound waves will be aimed at the soap as it's sprayed out to dry. The sound vibrations will jiggle the droplets of soap so hard that they'll zigzag as they fall, covering 200 times the normal distance in the same period of time. This vigorous motion means faster drying. It is claimed the same process can be used to spray-dry drugs and detergents.

One of the first uses these powerful new waves have been put to has been to attack particles of solids or liquids suspended in gases that come out of chemical vats and factory chimneys as fumes or smokes. At the present most such particles are collected electrostatically. The solids are given a positive or negative electric charge and are then attracted to plates having the opposite charge. With its new process, Ultrasonic estimates installing the more compact sound wave collector would cost about half as much.

Heat Transfer Medium

Production engineers responsible for supplying heat for processing have long been seeking a way to supply heat at temperature levels somewhere between that of direct fire and steam. DuPont research men developed a unique, practical material called "Hi-Tec" to transfer heat in this intermediate range.

Although this heat transfer medium has been used in some large plants and some special applications it was the engineers of Bethlehem Foundry with the cooperation of DuPont who developed and perfected this unit.

Known as the Beth-Tec Unit this development made the material Hi-Tec practical as an industrial tool. This new unit is a completely automatic, self-contained "Package" available for use by all industrial plants utilizing heat processing.

One process where this is particularly true is in the manufacture of phthalic anhydride, a chemical which is made in large quantities. Another is in the distillation of fatty acids or the manufacture of synthetic oils to exact predetermined specifications. In the manufacture of paints, petroleum products and food, it eliminates the need of direct firing—adding safety and much needed control to the process.

The heat transfer medium used is a mixture of salts which has proved to be the only commercially feasible material to transfer heat in this broad range between flame and steam temperatures. All other known materials fail in this respect because they are solids, as metals up to a high temperature level, and practically

IN MEMORIAM

Arthur W. Lightfoot

Our beloved friend, Arthur Lightfoot is dead. Without warning Death suddenly cut him down while he and his wife were enjoying the snow as week-end guests of Lloyd and Madelaine Vollckenning at their home in Glen Ridge, New Jersey.

That he departed in a happy frame of mind symbolized a happy life and augurs as well a happy existence for him in Heaven.

As a director of Nicholas Proprietary Ltd. (Aspro), Arthur Lightfoot had recently come to this country to establish his company here as he had already done in many parts of the world. To the success of this venture he was looking forward with high hope and enthusiasm when Death suddenly took him away from us.

Those who knew him well will forever mourn his passing. Loyal to his friends, to his subordinates, to his associates on the board of Nicholas Ltd. and tolerant as well of the failings and foibles of human nature, he was a man to admire and to emulate. His was a blithe and humble spirit.

There was neither bluff nor bluster in Arthur Lightfoot. He never sought to impress people with the importance of his position or the magnitude of his projects. In his approach to business affairs his manner was casual and often whimsical. But neither the size of his projects nor the technical complexities inherent in them, ever seemed to worry him or caused him to doubt eventual success. It was this quality which made him such an agreeable co-worker.

Arthur Lightfoot was but forty-seven when he died. There are few men, who in so short a life, have had such great responsibilities thrust upon them or who could have carried their burdens so easily. He was a man, indeed, and his company could ill afford to lose him.

He was a friend in deed and not in word alone.

All over the world his friends will forever mourn him and in our hearts, as we know it is in Heaven, perpetual light will shine upon him.

Preview of '48

THEY'RE in trouble! You need no crystal ball or social-service survey to see the picture. Mr. & Mrs. Jones have got to make that paycheck go further—they're in a genuine squeeze play and they are going to do something about it. They are going to "shop"—cautiously and carefully. Whether you get your share of their dollar depends on you—and you *can* do something about it.

MEET THE CHALLENGE AGGRESSIVELY

Generous sampling proves and demonstrates what thousands of words cannot. The *Sanitape-Sealtite* Sample, with its completeness, attractiveness, protectiveness, and convenience is without an equal.

New package design can give your product an entirely new appeal—lift it out of time-worn, competitive situations—facilitate new and unsuspected uses—and if unit-packaging be selected, you will have the satisfying economies available through Sanitape-Sealtite and our Contract Packaging Division.

Smart merchandising can help you to your rightful share of the hard-pressed pay envelope. Attractive, convenient packaging and arresting card and counter displays, to which unit packaging is ideally suited, are yours with the *Sanitape-Sealtite Method*.

Sanitape-Sealtite

For packaging pills, tablets, capsules, powders, creams or liquids—as single or multiple-unit samples or in standard sale packages of varying quantities from 5 to 100—this unique method holds untold possibilities and an infinite variety of adaptations. Ask us for pertinent details.

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all other materials decompose at the high temperatures: e.g., with hot oil or organic compounds there is a build-up of excessive pressures: e.g., with metals there is a possibility of toxic vapors.

Fortunately, this safe mixture was developed to give stability as well as an extremely low melting point so that it is liquid over a broad range of temperatures. It melts as low as 290° F.

With this new heat transfer salt and the unit, heating has the following advantages: There is no appreciable vapor pressure. The degree of heating is easily controlled. The coefficient of heat transfer is good; the low temperature difference required is an advantage in the design of equipment to operate at high temperature and high pressure. The possibility of toxic fumes or vapors is remote.

The Beth-Tec Unit consists of a vertical water tube type of boiler which should give the minimum of difficulty due to accumulation of scale and dirt on any part of the heat transfer surface. Initial units are to be fabricated from carbon steel and should be suitable for working temperatures up to 850° F.

It can be said with certainty the Beth-Tec Unit is designed to give safe, dependable and reliable service at a cost far below that of any other equipment aimed at achieving the same results. Full details and specifications are avilable upon directing your request to Bethlehem Foundry and Machine Company, Box 89, Bethlehem, Pa.

Vision

The late Frank J. Spade used to say that accountants lack vision because they have their noses stuck so deeply in their books that they can't see farther than the end of them. I have had many occasions to agree with this sentiment. Perhaps the most illuminating description of a typical accountant's lack of vision is contained on the "Journals of Christopher Columbus," in which it is said that on October 11, 1492, at ten o'clock at night, Columbus saw a light from his quarter-deck, but it was so small that he did not think it suggested land. Accordingly, he called two men: a servant and an accountant; the former could see the light, but the latter couldn't. How typical.

The following information is supplied by manufacturers of the equipment described and claims made below by these manufacturers are passed along for what they are worth. Presentation of such notice in this department is not to be taken as endorsement of the claims or of the equipment.

Lift Truck

Mixer Mobile Manufacturers, 6855 N. E. Halsey Street, Portland 16, Oregon, make a radically different type of power operated fork truck. The lifting arms on this apparatus consist of hydraulic toggles, capable of lifting 6,000 pounds. A feature of this new unit consists in the fact that it is a three-wheel affair on a very short wheel base—74″—it has a lifting height of 11′ and a turning radius of 75″. This means that the usual width of aisles can be cut down. Conventional lift truck designs require aisles 10 or 11′ wide. If the manufacturer's statement is true in regard to the "Wagnermobile Lift," the aisles need not be any more than 6½ or 7′.

Handy Gadgets

General Sales and Engineering Company, 7358 North Clark Street, Chicago 26, Illinois, have a couple of handly gadgets. One of them is a portable skid-lift arrangement with which a skid can be elevated about 36″. This device would be handy at the head of a bottling line, as it would enable the bottle dumpers to elevate the skids as the bottles are used, thus saving so much bending over. The same firm also makes an elevator operated by means of a hydraulic toggle which can be mounted in a shallow hole in the floor. This gadget could be used for elevating tubs of granulation, to keep the operator from bending his back. The same firm also makes a variety of pneumatic lifts for lifting weights of a few hundred pounds.

Clearjel

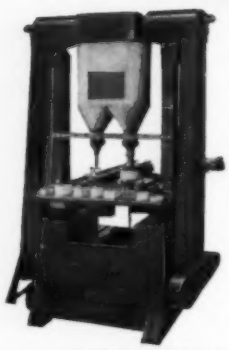
National Starch Products, Inc., 270 Madison Avenue, New York, N. Y. manufacture a special type of starch which is used in making pie fillings, which has some extraordinary properties, suggesting its use as a granulating agent. The product makes a perfectly beautiful gel, and I think it would be very much better than the ordinary starch paste so commonly used, although I haven't yet had a chance to try it.

Tablet Counting Machine

George H. Daniels, 515 Hort Street, Westfield, New Jersey, has developed a tablet counting machine for which it is claimed that no extra parts are required to change from one size of tablets to another, or from one count to another. The machine has been designed to handle uncoated tablets primarily, and while it works best on round tablets, it also will handle oval as well. It is claimed that the machine on hundreds will handle 100 bottles a minute.

In operation, the supply of tablets are fed by means of a vibrator into inclined drives, down which the tablets roll to the filling receptacles. This machine was recommended to me by a user as being a very good unit but I, personally, have not had occasion to use one yet. It might be added that the machine is more or less in the development state still, and has not yet been produced on a mass production basis. Arrangements for this are now going forward.

. . . they chose US

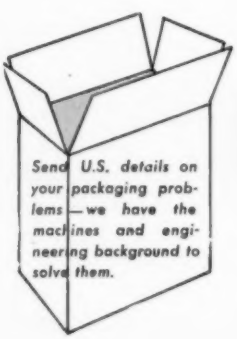


Model MH "BOND" Semi-Automatic VOLUME FILLER, WEIGHER OR PACKER

The manufacturers and packers of the products illustrated above came to ***US*** for dependable packaging equipment. The Model MH "Bond" filling machine was selected for several reasons. (1) The MH "Bond" is semi-automatic and therefore can be converted easily from one package size to another or (2) it can be used for filling bags, envelopes, cartons, jars or cans. (3) A single operator can fill up to 40 containers per minute. (4) Packed weight is controlled to a fraction of an ounce. (5) It is ideal for packing such products as ground spices, face powder, talcum, flour, soap powder, cocoa, etc.

The Model MH "Bond" is a twin-station machine. ***US*** also manufactures several other models of semi-automatic and automatic machines with one, two or four stations.

Regardless of your packaging machinery problems, it will pay to discuss them with ***US***, just as others have done for many years.



Send U. S. details on any of your packaging problems—we have the machines and the engineering background to help solve them.

US Automatic Box Machinery Co. Inc.

Owning and Operating

NATIONAL PACKAGING MACHINERY CO. • CARTONING MACHINERY CORP.

45 ARBORETUM ROAD, ROSLINDALE, BOSTON 31, MASS.

Branch Offices: NEW YORK CLEVELAND CHICAGO LOS ANGELES (KRUGH EQUIPMENT & SUPPLY CO.)

Auger Packer

Over a period of years, package machinery manufacturers have received numerous requests from both the small independent packers of non-free flowing dry powdered materials and large packers interested in a machine that could handle sample runs or market testing runs of new products.

Accordingly the Triangle Package Machinery Company, Chicago, has produced an auger packer to meet the demands of the industry with a packer which would have the range from a few ounces up to approximately five pounds. The result is an all purpose Model U-1 Auger Packer. It is a machine which requires but one unskilled operator whose only task is to merely place an empty container on a filling platform. The operation is entirely automatic. The elevator table lifts the empty container to a point where the Auger and the tube of the packer is just about touching the inside bottom of the container. By incorporating this feature the material is equally packed throughout the container and eliminates 98 per cent of the dusting.

As soon as the container has been elevated to a point where the auger, which is incased in the tube, begins operation and forces the material into the container. Through this packing action a force is exerted which gradually pushes the elevator table downward until the exact amount of material is in the container. The action of a sensitive mercury switch disengages the clutch to stop the auger from packing additional material.

Users report speeds up to thirty packages per minute depending upon the product and size of the container. Production in all cases has been increased because operator fatigue has been minimized through the elimination of old-style foot pedals. The machine will function on all sizes of cans, jars, cartons, bags and bottles.

Moisture Measuring Equipment

A new, 28-page bulletin just published by the American Equipment Company, Inc., Silver Spring, Md., gives a comprehensive description of a complete line of electric hygrometer equipment suitable for the more exacting industrial and laboratory applications.

The booklet is generously illustrated and lists, among many other devices, a tiny sensing element that responds within a fraction of a second to increases or decreases of relative humidity as small as 0.1 per cent. The booklet explains how this element measures with an accuracy of within plus-minus 1½ per cent relative humidity, when used with suitable equipment.

With this electric hygrometer system, the user no longer needs to be concerned with such limiting factors as restricted circulation of atmosphere around the sensing element, extremely small mounting spaces for sensing elements, remote installation of indicating or other equipment, and the subjection of the sensing element to vacuum or pressure.

Shriver "Hydro-Kloser"

T. Shriver & Company, Harrison, N. J., has come out with a hydraulic closing device that can be readily installed without alterations on old or new Shriver filter presses of 24 inch plate size or larger. The unit recently developed, provides a simple, easy, speedy means of closing a filter press hydraulically, eliminating the strain and back breaking labor in manual closing mechanisms.

Floor Maintenance

The G. H. Tennant Company of 2530 North 2nd Street, Minneapolis 11, Minnesota, is known to you through its system of floor maintenance, for which it provides materials and equipment. This system, as you will recall, embraces sanding old floors, filling them with a special floor seal and buffing them afterward with a suitable buffing tool. This company now has a machine which is used for keeping floors clean. It's a rotary brush affair which dislodges dirt and picks it up in a special vacuum bag. The brushes used are, for some types of work, made of wire; other types,

Another step forward in drug and cosmetic processing

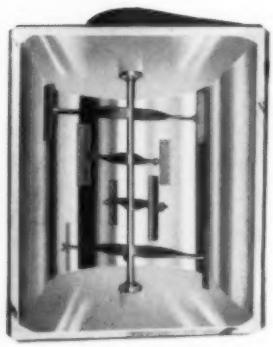
THE NEW "CHR" JACKETED SAN-I-TANK HAS THESE ADVANTAGES

1. GREATER CAPACITY IN LESS SPACE
2. STAINLESS STEEL WELDED CONSTRUCTION
3. GUARANTEED AGAINST RUST AND CORROSION
4. BUILT LOW FOR FAST, CONVENIENT OPERATION
5. SMOOTH, HIGHLY POLISHED INTERIOR
6. NO PROTRUDING COILS
7. EFFICIENT MULTIPLE MIXING PADDLES
8. SPECIAL HIGH-PRESSURE JACKET

The CHR San-I-Tank is an entirely new design in jacketed tanks for processing liquid drugs and cosmetics; either cooking or cooling. Operation is simple, convenient and fast . . . production is increased. The special construction of the jacket which is welded directly to the inner tank permits maximum "flooded-surface" contact. Tests have proven that a full tank of light liquid can be brought up to boiling within the short time of thirty minutes. Two inches of permanent glass-wool insulation prevent heat loss between the inner and outer shell of the tank and protect the operator.

At the right is a top view of the CHR Tank showing the smooth, highly polished stainless steel interior. There are no coils to clog or collect unsanitary waste. A series of eight heavy duty mixing paddles are arranged to speed processing by constantly agitating the liquid against the heated tank jacket. Scraper blades on the paddles prevent the mixture from sticking to the tank walls. CHR Jacketed Tanks are also available with propeller type agitator for mixing light drugs and cosmetics.

Investigate this new tank before you buy. Send today for complete information.



THE FINEST EQUIPMENT FOR DRUG AND COSMETIC PROCESSORS

Type CJ Stainless Steel Jacketed Tank is a new, proven development for rapid cooking and mixing of liquid products. Tanks are equipped with vibrationless Rotary Seal Agitators. Working Capacities from 60 to 1,000 gallons.

These sturdy, stainless steel Stock Pots will give you a lifetime of use. They are guaranteed rustproof and noncorrosive and can be equipped with stainless steel nipples, covers and casters. Stock Pots come in 5, 10, 20, 30 and 50 gallon capacities.

STAINLESS STEEL SAN-I-TANKS

SERVING THESE INDUSTRIES: BEVERAGE • MILK • FOOD • DRUGS • CHEMICALS • COSMETICS

METAL GLASS PRODUCTS COMPANY

GENERAL OFFICES BELDING 2, MICHIGAN

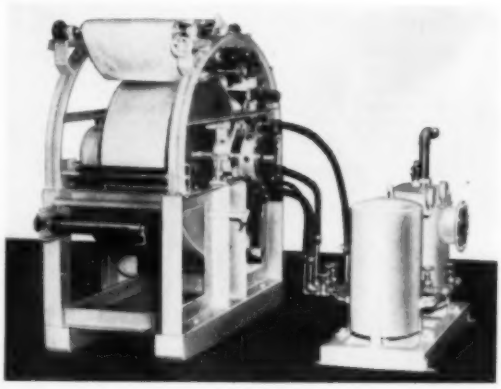
fibre bristles or steel wool. This apparatus also is equipped with a surface cutter so that you can use the machine for cutting the surface of an old concrete floor in preparation for re-surfacing. This machine is often used for safety scoring of sidewalks to prevent slipping.

Rental-Purchase Plan for Pilot Plant Filter

For pilot plant, or for small or temporary production filtering operations where it is not feasable to tie up capital by outright purchase of filtering equipment, a rental-purchase plan has been announced by Filtration Engineers Inc., 858 Summer Ave., Newark, N. J.

The plan is revealed along with the introduction of a new FEinc pilot plant rotary vacuum filter. Under the plan, the pilot plant filter is placed with the customer on a monthly rental basis. The fee for the first month is set low to allow for time lost in starting up the process.

In the event the customer later purchases a larger FEinc filter for full scale production, or decides to purchase the pilot plant filter, Filtration Engineers would issue a credit allowance based on the number of months the small filter was rented.



The new FEnic pilot plant continuous rotary vacuum filter has 3 foot drum diameter and 1 foot drum width, (approximately 10 square feet drum area). Made of stainless steel, it is very flexible in application and will handle almost any rotary filtration operation. The FEinc string discharge handles difficult cakes, cleanly, efficiently, and with longer cloth life. The washing mechanism which is supplied with the filter can be disconnected for those applications where washing is of no practical value.

Automatc Rotary Filler

MRM Company, Inc., which specializes in manufacturing filling machines, has introduced its new R-48, a fully automatic filler designed and priced to reach all manufacturers.

The unit is totally enclosed in a special steel cabinet which contains the complete working mechanism. Calling for no skilled maintenance or operation, the filler handles all styles and shapes of containers and mouth openings from a fraction of an ounce through one quart, and is adaptable to quick change-overs with no loss of production time. Viscous, foamy, or still liquids can be handled with equal speed and ease.

The company manufactures other rotary models up to 30 spouts, for further information write 193 Berry St., Brooklyn, N. Y.

Gravity Filling Machine

The Packer Machinery Corporation, 30 Irving Pl., N. Y., has developed a low cost, gravity type filling machine that should be of special interest to people concerned with the multiple filling of one and two gallon cans. Filling by gravity will also be of interest to those filling delicate liquids where a minimum amount of agitation is important.

A conversion unit is also offered which can be attached to most current vacuum type filling machinery. The gravity conversion attachment will allow a user the option of either filling method in a single piece of equipment.

Bulletin on Ion Exchangers

Engineers and operators of plants using or considering the installation of new ion exchange equipment or the replacement of the exchanger material in existing plants will be particularly interested in a new bulletin on ion exchangers which has just been published by Liquid Conditioning Corporation, Linden, N. J.

The concern manufactures equipment and materials for all water treating and liquid conditioning processes, and the bulletin describes its Liquonex cation zeolites and anion exchangers. The information in the bulletin includes explanations of the correct applications, advantages and characteristics of many types of resin, and synthetic gel zeolites to assist in assuring correct selection for specific water conditions and plant requirements.

Copies of the bulletin can be obtained by writing to Liquid Conditioning Corporation, Dept. Dc. 114 E. Price St., Linden, N. J., and asking for bulletin 13 on Liquonex Ion Exchangers.

Rotameter

A special full-view rotameter with a safety shield for corrosive services has been put out by Brooks Rotameter Company. Ordinarily a meter of this type has the internal parts in contact with the fluid made of stainless steel, or other special metals. The Brooks meter has all external metal parts also made of stainless steel. Hence the meter withstands external corrosion as well as internal corrosion. It will measure flow rates as high as 120 GPM of liquid or 240 CFM of gas. For full particulars, write for folder 20, Brooks Rotameter Company, Lansdale, Pa.

EPPENBACH HOMO-MIXER MAKES DISPERSIONS WITHOUT INCORPORATING AIR

1. Turbine head near bottom of tank starts a converging horizontal flow which carries sedimentary material into close-fitting rotor vanes.
2. Inflowing "slurry" is violently agitated at high velocity and projected upward toward surface.
3. A submerged baffle-plate deflects the rising current horizontally toward sides of tank, thence flowing downward toward bottom.
4. Rapid down-flow submerges and wets out floating material, including additives being fed into the mix.
5. The entire batch is deflocculated resulting in a perfect dispersion.
6. No surface boil . . . no vortex . . . NO AIR DRAWN IN.

The Eppenbach HOMO-MIXER is built on an entirely new principle. Whereas ordinary mixers create a vortex in the material that pulls in air, the HOMO-MIXER draws only from the bottom of the tank. Entrapped air tends to cause separation and splitting, and frequently oxidizes the product.

Furthermore, the HOMO-MIXER does not require a high head of liquid to give efficient mixing action. It is possible to process material in a tank at a depth just great enough to cover the mixing head. Fits tanks of all types and shapes . . . no clamps required . . . no special angle of installation.

Write for complete details of this mixer—"the only one of its kind." Ask for Catalog No. 402.

Eppenbach HOMO-MIXERS are available in a complete range of sizes for laboratories and production plants. Capacities range from 2 to 2,000 gallon batches from ¼ to 25 H. P.

EPPENBACH, INC.
45-10 Vernon Blvd., Long Island City 1, N. Y.

EPPENBACH INC.
Processing Equipment for Over 30 Years

Here's what you'll like about the new

...''HAGERTY HANDY FILLER''

- Durable
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- Eliminates spilling
- Simple to operate
- Convenient sizes
- Light construction

The most practical hand filler for creams, lotions and liquids.

Write for illustrated folder and prices

HAGERTY BROS. & CO.
10 Platt Street New York, N. Y.
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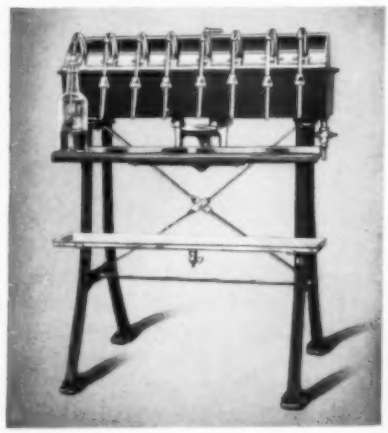
"Filpaco" Siphon Filler



- *Economical*
- *Efficient*
- *Durable*

Ideal for: Water, acids, alcohols, light oils, chemicals, medicinals, liquid soap.

- Fills all styles and sizes of containers ranging in size from 2 oz. to 1 gallon.
- Uniform filling of every container.
- No pumps required.
- Excellent for medium and small production filling.

Write today for our new, beautifully illustrated, colored SIPHON FILLER BULLETIN.

Other "Filpaco" Products for the Drug and Cosmetic Industries: Filter presses, tanks, fittings, pumps, conveyors, filter media, and filter aids.

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2428 S. Michigan Ave., Chicago 16, Ill.

S&S

"BETTER MACHINES for BETTER PACKAGES"

at speeds to suit your needs

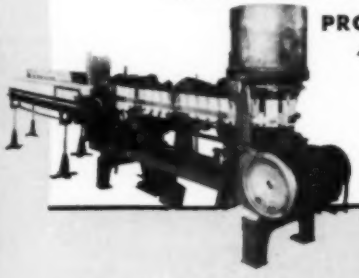
NEVERSTOP CARTON FILLER and SEALER

MATERIALS
All Food and Grocery Products

CAPACITY
Maximum Carton — 10½" x 6½" x 4½"
Minimum Carton — 2¾" x 1⅝" x ¾"

PRODUCTION SPEED:
40 to 120 per minute

Several Models



UNIVERSAL FILLER

FILLING MACHINES

SEMI-AUTOMATIC
FULLY-AUTOMATIC
SINGLE and DUPLEX TYPES

MATERIALS
Pastes • Powders • Granular Products or any free-flowing materials

PRODUCTION SPEED
15-30-60-120 per minute

CAPACITY
¼ oz. to 10 pounds

FILLS
CANS • JARS • BOXES • CANISTERS

TIGHT WRAPPING MACHINE

Automatic

Tight wraps the package after it is filled and sealed.

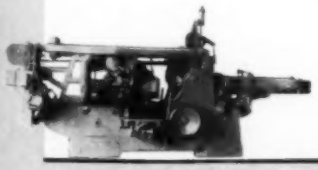
Makes attractive, siftless, tight-wrapped package.

MATERIALS: All products in cartons

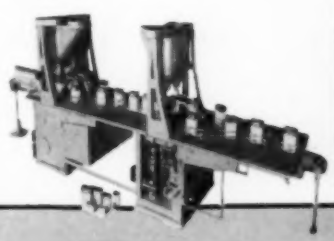
CAPACITY
Maximum Carton — 10" x 6½" x 4"
Minimum Carton — 3¾" x 1½" x 1"

PRODUCTION SPEED:
60 to 70 per minute

Write for literature.



AUTOMATIC 4 STATION FILLER



STOKES&SMITH Co.
Packaging Machinery — Paper Box Machinery
4912 SUMMERDALE AVE., PHILADELPHIA, U.S.A.

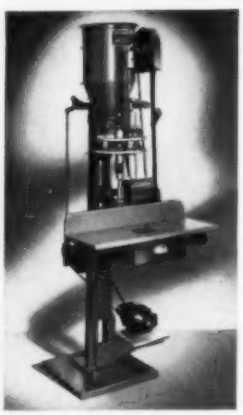
Profitable Productive Packaging

with

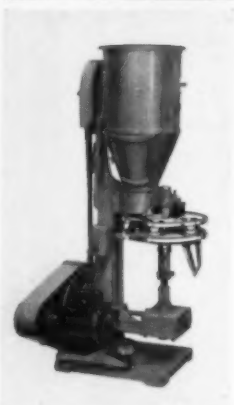
TRIANGLE

VOLUMETRIC FILLERS

accuracy
simplicity
versatility



Left—TRIANGLE Model SPA Volumetric Filler. Packages dessert powders, chemicals, spices, powdered drugs, and many other items neatly, accurately and economically. Quickly and easily adjusted to handle a wide variety of dry products for packaging in bags, jars, envelopes or cartons. One operator can produce from 30 to 60 packages per minute, in sizes ranging from 1 to 16 ounces. Equipped with an automatic plunger which assures positive discharge from measuring chambers. Write for literature.



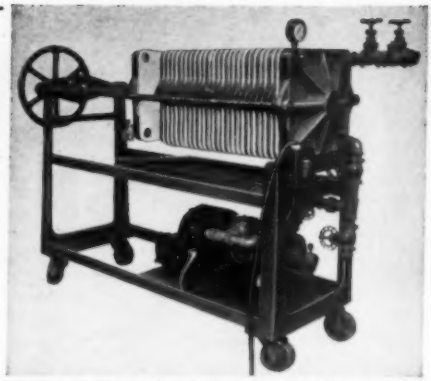
Left—An improved, inexpensive table model machine—the TRIANGLE P-1 Volumetric filler—designed to package all types of powders in various style containers. Available in several different models for handling packages from ¼ ounce to 16 ounces, at a rate of 20 to 50 packages per minute. Simple adjustments provide for changes in filling speed or volume of materials. This is an ideal machine for speedy, efficient, low-cost packaging. Write for literature.

TRIANGLE also builds a complete line of high-speed automatic and semi-automatic weighers, fillers and carton sealers. Ask for detailed information.

TRIANGLE PACKAGE MACHINERY CO.

929 NO. SPAULDING AVENUE, CHICAGO 51

Sales Offices: New York • Pittsburgh • San Francisco
Los Angeles • Memphis • Jacksonville
Branch Factory: Los Angeles



HORM FILTERS HORM ASBESTOS FILTER PADS

Horm Filters for filtration, clarification, polishing, are designed so that no liquid can by-pass the filter element. They are unsurpassed for drug, chemical and cosmetic preparations.

CLARIFLOW

- No rubber washers used
- Adaptable to all types of filter mediums
- Rapid change of filter pads
- Construction Stainless Steel or Bronze (nickel plated)
- Suitable for coarse and fine filtration, including germproof and ultra-fine

HORM ASBESTOS FILTER PADS FOR EFFECTIVE FILTRATION

STERILFLO

TRADE MARKS REG. U.S. PAT. OFF.

F. R. HORMANN & CO., Inc.

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Plant: 30 Sea Cliff Ave., Glen Cove, L. I.

Lower Your Unit Costs

POTDEVIN

6"—8½"—12" and 18" wide
LABEL PASTERS

Write for FREE catalog LP-10

POTDEVIN MACHINE CO.
EST. 1893
1257 38TH ST. BROOKLYN 18, N. Y.
POTDEVIN

HOW ROSS CARTONING MACHINES CAN *Slash* CARTONING COSTS!

Users of Ross cartoning machines aren't penalized by *expensive* downtime when making a carton size changeover, for Ross machines are designed to handle a wide range of various size cartons. There are no parts to remove or replace during a conversion. It's done by simply adjusting movable units permanently built into the machine bed. Any semi-skilled operator can make the changeover in a few minutes time.

Ross machines are built of standardized precision parts, made to close tolerances. Vital moving parts are self-oiled. Master Speed-ranger control provides maximum flexibility.

Ross machines are available in both semi-automatic and fully automatic types. Write for full information about these smooth operating, gentle handling cartoning machines. Learn how they will slash cartoning costs, save money for you.

Send the coupon today.

ROSS SEMI-AUTOMATIC CARTONING MACHINE

Sets up cartons of various sizes and tuck seals one end ready for hand loading or hand filling at rates in excess of 120 cartons per minute.

TO CONVERT FROM ONE SIZE CARTON TO ANOTHER

Illustrated are two of the several adjustable compounds on a Ross machine bed. Adjustments for carton size are made against numbered scales guided by calibration charts furnished with each Ross cartoning machine.

A. H. ROSS COMPANY, Inc.

PACKAGING MACHINERY

Subsidiary of Rockwell Manufacturing Company

Box 998, Dayton 1, Ohio

MAIL TODAY

A. H. ROSS COMPANY, INC. A148
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Gentlemen:

Please send me, without obligation, your complete engineering and performance data on Ross ☐ semi-automatic or Ross ☐ automatic machines.

COMPANY_____

STREET_____

CITY_____ ZONE_____ STATE_____

YOUR NAME_____ TITLE_____

THE "Sealed-Disc" Filter In Action

for the dependable, uniform clarity and brilliance of *All Liquids*

A real space and time saver

"Sealed-Disc" Filters have proved their ability on extracts, drugs, chemicals, perfumes, cosmetic preparations, animal and vegetable oils and other similar liquids that require a fine degree of clarity without altering taste or color. Compactness and portability assures ease and speed in handling, air-tight construction prevents leakage and even evaporation. Available in Stainless Steel etc. with or without pumps in sizes from 1 g.p.m. to thousands of g.p.h. Write for our bulletin No. 745.

The Alsop Engineering Corporation
302 Cass Street **Milldale, Conn.**

ALSOP ENGINEERING CORPORATION
Filters, Filter Discs, Pumps, Tanks, Mixers, Agitators

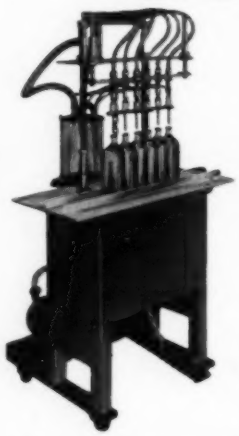
Design, Construction and the Complete Equipping of Laboratories, Biological, Chemical, Cosmetic, Drug and Food Plants.

A List of Nationally-known REPEAT Clients will be mailed you on request

WIGTON-ABBOTT CORPORATION
PLAINFIELD, NEW JERSEY
Telephone: Plainfield 6-8100

PRECISION

Universal Filling Machines
for GRAVITY-VACUUM-PRESSURE
One Machine — for 3 Uses



- ✓ No Dripping— Negligible Overflow— High Speed
- ✓ Universal Automatic Filling Valves
- ✓ Fills all types of solutions: free flowing— heavy—foaming
- ✓ Instant filling of liquid into bottles
- ✓ Exact adjustment to desired height in bottle
- ✓ All bottles filled uniformly
- ✓ For all size bottles
- ✓ Made to meet your requirements
- ✓ 2-10 Spouts

Inquire About Our: Alco-Aair Bottle Cleaning Units; Collapsible Tube Closing Machines; Jar and Tube Filling Machines; Automatic Hand Filling Valves; Bottle Emptying and Cleaning Units; Twin Bottle Filling Machines

Perl-Oussani Machine Mfg. Co.
70 JAY STREET, BROOKLYN 1, N. Y. • MAin 4-0165

PACKAGING FOR PROFITS!

Profit-wise manufacturers are smart when they figure cost-wise in their planning of proper packaging control . . . For you, "GEYER" Fillers do a job of 'packaging for profits.' • Designed to operate economically, these straight line, 'sweet running' Fillers with multiple cylinders maintain highest production quotas for any size and shape cosmetic or drug product. Slow moving parts assure long life, attachments can be shifted in a matter of seconds.

No matter your packaging needs—**CLEAN CUT OFF FILLING** for products that seek their own level or **BOTTOM UP FILLING** for semi-solids—"GEYER" does the job . . . No drip . . . Clean Filling . . . Entirely automatic . . . Maximum production assured.

GEYER SINCE 1914

LEADING COSMETIC, DRUG & TOILETRY MFGRS. USE GEYER FILLING MACHINES

THE FILLER MACHINE CO. INC.

1249 E. MONTGOMERY AVE., PHILA., PA.

Better Ingredient Compounding..
More Accurate Packaging . . .
with These Precision Units . . .

EXACT WEIGHT Shadograph—a revolutionary new principle in precision weighing, substituting a light ray for mechanical indication. Electrically operated, noiseless in use, high speed operation, extremely high accuracy. Ideal unit for fine compounding of exacting formulae. Excellent equipment for high speed production line checkweighing. Unit can be supplied with scoop or platter as ordered. Capacity and visible accuracy to specifications of the operation.

EXACT WEIGHT Scale Model No. 109B is expressly designed and built for tablet and capsule counting by weight. The operation is generally handled by actually counting the sample number of tablets or capsules wanted and placing them in the left scoop. The right scoop is used for counting, operation after operation. Nickel Silver Scoops in three sizes: A—5" X 9"; B—5½" X 11"; C—6½" X 13".

Standard capacity of scale 3 lbs. Other weights to specifications.

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YOUR TRADE-MARK RECORD

By JOHN H. GRAHAM
International Trade-Mark Consultant

The Old Versus the New on What the Lanham Act Has Done!

A question came across my desk a few days ago which made me do some close study into the question of what is now considered proper for trade-mark. From my investigation it seems that there are many changes and many more opportunities for registering today than before the Lanham Act.

Here was the basic question: "Can I cover as a trade-mark my use of a word for an active and useful ingredient of my product? I mean something like 'Irium' of the Pepsodent family!"

I remember the "Irium" case as well as others before it where the Patent Office refused registration on the ground that there was no actual trade-mark use of the word.

Back in 1925 the mark "When words fail—send" used for candy was refused registration as not being a true trade-mark because it did not indicate origin or ownership of the goods.

In 1937 the Commissioner of Patents ruled similarly on the "Irium" case. Examination of this case is helpful. Pepsodent Co. filed application for "Irium" as a trade-mark and duly appealed from the Examiner's rejection. The Examiner's refusal was based on the ground that Pepsodent had filed no specimen labels showing a trade-mark use of "Irium."

They were putting out at that time their usual cartons on which a sticker was attached reading in part: "Pepsodent tooth paste alone contains Irium. Safely steps up polish on teeth."

During the Appeal, new cartons were presented having similar wording imprinted directly on the carton. This, however, did not sway the Commissioner. He made a clear statement of opinion that the word "Irium" performed no trade-mark function. Also, he said that the word obviously identified an ingredient of the tooth paste and not the tooth paste itself, and the notation on the cartons was merely a statement of the quality of the product. Pepsodent had pointed out, however, that the trade-mark applied for was not with respect to tooth paste but to a pharmaceutical ingredient for dentifrices, and the ruling agreed that the new cartons presented definitely defined a pharmaceutical product and the right to use it in a tooth paste belonged to Pepsodent as giving special value to the tooth paste. It did not, however, define a tooth paste according to the ruling and thus there were no labels which would show a trade-mark use.

Now, presumably, if Pepsodent has labeled and packaged "Irium" and sold it as a pharmaceutical to other dentifrice makers, they would have been entitled to a trade-mark. But since they did not name their tooth paste itself as "Irium" and since they did not sell "Irium" as a pharmaceutical to anyone, they were prevented from protecting their notation as a trade-mark. After this and similar decisions, there were many disgruntled manufacturers who felt the trade-mark department of the Patent Office was picking on them.

At that time, the necessity for actual registration at the Patent Office was not as strong as it is now under the Lanham Act. You could always go ahead and use the mark without benefit of registration.

Today, with the new Act in effect, the question arises as to what can be done in such a case. It is recognized that registration is of the greatest value and mere reliance on common law rights as in the past is not a safe procedure. Yet, where you have an "Irium" in your tooth paste or equivalent, what do you do?

Well, I have not seen any registrations of this nature as yet published, but I believe the Patent Office must and will accept them.

The old Act of 1905 under which the discussed decision was rendered had amongst other grounds of refusal that a mark must not consist of words or devices . . . which are descriptive of the goods with which they are used, or of the character or QUALITY of such goods . . .

It was under the emphasized part of this quote that such registrations were refused. In other words, when applied to a tooth paste, "Irium" which was identification of a new and useful ingredient thereof could only be stated to refer to the quality or the character of the tooth paste.

The Lanham Act appears to change that if only by omission and not by clarification. In the equivalent portions of the provisions and grounds for refusal as that quoted above only the mention of descriptiveness itself is retained. Now, the mark must not be . . . merely descriptive or deceptively misdescriptive . . . of the goods.

Furthermore, the new definition of a trade-mark is made quite clear. A trade-mark under the Lanham Act . . . includes any word, name, symbol or device or combination thereof adopted and used by a manufacturer or merchant to identify his goods and dis-

tinguish them from those manufactured or sold by others.

This is a broader definition and one which may well embrace such cases as the one discussed above. It would be entirely up to the trade-mark owner to show that the ingredient mark, such as "Irium" did actually identify his goods, which would be tooth paste in the Pepsodent case. But removal of the actual bar of a statement as to describing quality or character of the goods, as in the 1905 Act, leaves room for the right of argument. Certainly, the logical thing to do is to attempt to register such a mark since the bar has been removed and the matter is now open to argument. At any rate, it is a change in the right direction and with careful wording on a label to identify the ingredient as such, as well as stating its properties or qualities in the final product, it may well be that we shall see some of such marks duly registered under the broadened scope of the Lanham Act.

Sales Affiliates Ltd. Win British Decision

Last year the High Court of Justice in England rendered a decision which may be very interesting to drug and cosmetic concerns.

The situation was that a firm named Le Jean Ltd. had been giving permanent wave treatments to customers who asked for a JAMAL or VAPET wave but using other than the Sales Affiliates products. Both JAMAL and VAPET are registered as trade-marks in Great Britian.

No evidence by the public of such passing off of the goods as genuine was given, but it was proved to the satisfaction of the Court by means of trap orders that a request for a "Jamal" permanent wave had resulted in a treatment for waving using sachets not marked by Sales Affiliates.

It is to be noted that the wide publication by advertising of the "Jamal" and "Vapet" system was held to be the reason why the public had a right to expect a treatment using genuine "Jamal" or "Vapet" meterials when they asked for a "Jamal" or "Vapet" permanent wave.

Trade evidence was given that "Jamal" waving was understood to be a waving system using Sales Affiliates products and not a particular style or type of coiffure.

Some interesting inferences were made, particularly regarding whether evidence obtained by trap orders was legitimate. Two ladies were chosen to write for an appointment for a "Jamal" wave, and they attended and "borrowed" waving pads and proved by evidence that they were not given a wave using "Jamal" products.

The final conclusion to be arrived at is that under British law the Courts will protect to the fullest a trade-mark owner from attempts to pass off or substitute other goods when the trade-marked goods were asked for.

The following Trade-Marks were published in the Official Gazette of the U. S. Patent Office in Volume 604 (numbers 3-4) dated November 18 to November 25, 1947 and Volume 605 (numbers 1-3) dated December 2 to December 16, 1947, inclusive.

H R—VI—C—523,264
Helena Rubinstein, Inc., New York, N. Y.
Ser. May 29, 1947 D. U. January 1929

Habano 1834—VI—ABC—524,544
Jerome F. May, Ashbury Park, N. J.
Ser. June 20, 1947 D. U. Nov. 21, 1939

Hairolive—VI—H—524,377
Colgate-Palmolive-Peet Co., Jersey City, N. J.
Ser. June 18, 1947 D. U. May 15, 1947

Heartstrings—VI—B—520,115
Elizabeth Norris (Nina de Lisle), New York, N. Y.
Ser. Apr. 3, 1947 D. U. Mar. 26, 1947

Hirondelle—VI—B—502,085
Soc. D'ET. et Exp. de la Parfumerie de Luxe, Paris, France
Ser. May 14, 1946 D. U. Apr. 25, 1946

Hudd's—VI—H—513,248
Ola L. Huddleston (Huddleston Supply) El Dorado, Kans.
Ser. Nov. 26, 1946 D. U. April 1945

Hundred Per Cent 100%—IV—A—521,581
Les Parfums de Dana, Inc., New York, N. Y.
Ser. Apr. 30, 1947 D. U. Apr. 22, 1947

Hunto-Pine—VI—M—520,708
Huntington Labs., Inc., Huntington, Ind.
Ser. Apr. 15, 1947 D. U. Oct. 15, 1920

Jean Didier (and des.)—VI—B—469,373
Alan Woolf (Jean Didier Perfumery Co.), Windsor, Australia
Ser. Apr. 15, 1944 D. U. Dec. 7, 1942
Reg. 434,512 Nov. 18, 1947

Kela—IV—I—516,854
Kela Products Co., Binghamton, N. Y.
Ser. 516,854 D. U. Jan. 20, 1947

Kem (and des.)—IV—M—500,986
Kemical Products Co., Inc., Springfield, Mass.
Ser. Apr. 26, 1946 D. U. Dec. 18, 1944
Reg. 435,161 Dec. 9, 1947

Knight of Armor—VI—B—490,726
Wetherholt's Perfume Co., Chicago, Ill.
Ser. Oct. 29, 1945 D. U. Sept. 16, 1942

Lajoie De Vivre—VI—BCEM—491,946
Elizabeth Arden Sales Corp., New York, N. Y.
Ser. Nov. 21, 1945 D. U. Aug. 8, 1924

Lip-Stae—VI—C—515,426
Fannie Roberts Heyman, New York, N. Y.
Ser. Jan. 8, 1947 D. U. Nov. 20, 1946

Little Women—IV—A—489,439
Charles of the Ritz, Inc., New York, N. Y.
Ser. Oct. 5, 1945 D. U. Oct. 1, 1945

Look Lovely Angel—VI—CEH—505,041
Carter Products, Inc., New York, N. Y.
Ser. July 3, 1946 D. U. June 6, 1946

L'origan De Coty—(and des.)—VI—ABCHS—487,147
Coty, Inc., New York, N. Y.
Ser. Aug. 17, 1945 D. U. April 1922

Lucia Night—VI—B—517,787
Linnea Perfumes, Inc., Chicago, Ill.
Ser. Feb. 19, 1947 D. U. Sept. 4, 1945

"Ludia"—VI—C—519,521
Ernestine L. Gove (Luda Cosmetics Co.), New York, N. Y.
Ser. Mar. 25, 1947 D. U. Dec. 31, 1946

Manulac—VI—E—511,559
Inter-Hamol, S. A., Zurich, Switzerland
Ser. Oct. 26, 1946 D. U. 1943

Marvella—IV—K—525,461
Allen O. Walker (Marvella Products Co.), Peoria, Ill.
Ser. July 1, 1947 D. U. December 1924

Mast-R-Spra—VI—T—515,733
Andrew Wilson, Inc., Springfield, N. J.
Ser. Jan. 14, 1947 D. U. May 21, 1946

Meldoris—VI—CEGHIS—512,265
Kolar Labs., Inc., Chicago, Ill.
Ser. Nov. 8, 1946 D. U. Jan. 2, 1921

Minute Wave 60 Seconds—VI—G—523,871 (and des.)
Vernon Isbell, Fort Worth, Texas
Ser. June 9, 1947 D. U. Apr. 1, 1946
Reg. 435,174 Dec. 9, 1947

Mipekado—(and des.)—VI—H—520,381
Alberto Cordero (Myrna Products Co.), New York, N. Y.
Ser. Apr. 9, 1947 D. U. Mar. 21, 1947

On Leave—VI—B—503,976
Kay Daumit (Kathryn, Inc.), Chicago, Ill.
Ser. June 15, 1946 D. U. May 15, 1943

Oro—(and des.)—VI—M—500,061
Arturo Vincente Cubero, Valencia, Spain
Ser. Apr. 12, 1946 D. U. November 1943

Panasuds—IV—A—521,324
Jacqueline Cochran, New York, N. Y.
Ser. Apr. 25, 1947 D. U. Mar. 31, 1947

Pan-Derma (and des.)—VI—H—511,170
Samuel A. Lane (Pan-Derma Labs.), Brooklyn, N. Y.
Ser. Oct. 19, 1946 D. U. Jan. 1, 1938
Reg. 434,527 Nov. 18, 1947

Peppermint Pink—VI—C—514,477
Richard Hudnut, New York, N. Y.
Ser. Dec. 18, 1946 D. U. September 1939

Pigtails—IV—A—489,441
Charles of the Ritz, Inc., New York, N. Y.
Ser. Oct. 5, 1945 D. U. Oct. 1, 1945

Pino—(and des.)—VI—T—480,906
William Harrison Jackson, Orange City, Florida
Ser. Mar. 14, 1945 D. U. Mar. 1, 1931
Reg. 434,513 Nov. 18, 1947

Priority—IV—A—523,197
Les Parfums de Dana, Inc., New York, N. Y.
Ser. May 28, 1947 D. U. May 1, 1947

Pursuit—IV—A—523,162
Harbin D. Dunaway (H. D. Dunaway & Co.), Atlanta, Ga.
Ser. May 27, 1947 D. U. Mar. 1, 1946

R P M (and des.)—IV—M
Standard Oil Co. of Calif., Wilmington, Del.
Ser. Apr. 18, 1947 D. U. Feb. 3, 1947

Residex—VI—T—513,703
Western Exterminating Co., Inc., Newark N. J.
Ser. Dec. 4, 1946 D. U. Oct. 30, 1946

Sadie's—(and des.)—VI—H—519,755
Sadie M. Jones (Sadie's), Jackson, Miss.
Ser. Mar. 28, 1947 D. U. Jan. 10, 1947

Scrub-Team—VI—C—521,257
Helena Rubinstein, Inc., New York, N. Y.
Ser. Apr. 24, 1947 D. U. December 1945

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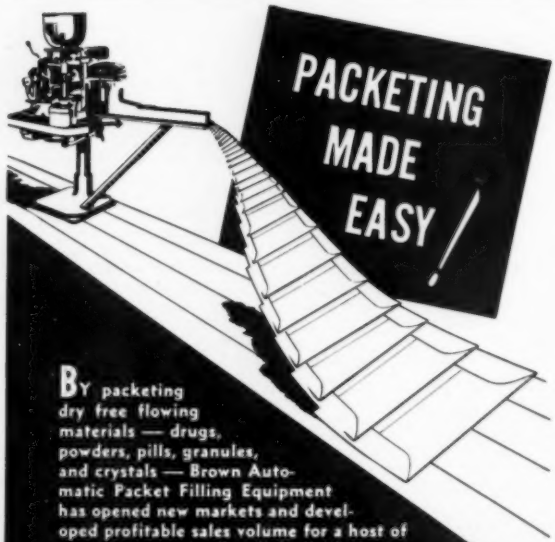

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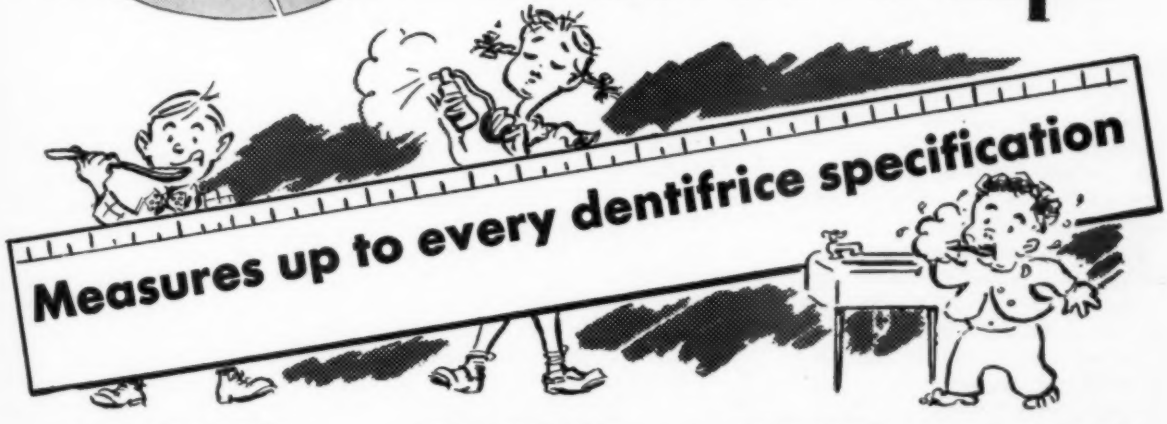

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Patent Thoughts and Trends

By THOMAS CIFELLI, Jr., Patent Attorney

Patents and Peace

The other night I attended a patent law meeting in New Jersey. The speaker was the U. S. Commissioner of Patents, the Hon. Lawrence C. Kingsland.

Mr. Kingsland gave a very informative as well as entertaining discussion on the present situation in the Patent Office, pointing out, among other things, that patent applications are now being filed in his office at the rate of about 2,000 per week. While his talk was full of other meaty patent items it is not my purpose here to summarize what he said. Instead, I wish to dwell on a comment the speaker made during the course of his talk. In the long view the key to the future peace of the world may well be in that comment.

Prior to assuming his present duties Mr. Kingsland was engaged for some time as an adviser to the Phillipines legislature in drafting a patent law for the newly-independent country. During the course of that undertaking, Mr. Kingsland was struck by the desire of his Phillipine associates to model their legislation substantially after the U. S. patent system and made a remark to his associates to that effect. In reply, an individual identified as a prominent Phillipine jurist said that the answer was clear and obvious and it was simply that the U. S. patent system provided the chief hope for the peace of the world.

Perhaps the statement went too far. Perhaps it should be dismissed as just so much politeness on the part of Mr. Kingsland's host. Certainly, many will deny its accuracy. And yet if one takes the trouble to think about it for even a few moments he may come to the conclusion that perhaps the Phillipine jurist was not spoofing and indeed might have a very good point.

Consider the last two World Wars, especially World War II. It is doubtful if any one today would require any evidence to prove that industrial production was the key to victory. While there may be some dissents from a particular quarter it is also believed to be generally conceded, in the U. S. A. and outside of it, that U. S. production was the real key. The relationship between patents and production being almost as close as Siamese twins it follows that the U. S. patent system had an important hand in the victory.

All this sounds like special pleading, the reader may say. After all, one who derives his livelihood from the patent system would be expected to be a proponent of it. The foregoing facts cannot be denied, however. Moreover, it is believed that the importance of the patent system, particularly with regard to the subject under discussion, was never more eloquently expressed by a biased observer thereof than was done by the late President Franklin D. Roosevelt who stated that:

"Patents are the keys to technology; technology is the key to production, and production is the key to victory."

One may say that all this is past history. What of the future?

To attain peace many people, big and small, will have to work together. Already it is clear that without considerable help from the U. S. A. the peace of Europe and hence of the world may be difficult to maintain. Here again we come face to face with the patent system of the U. S. A. Under that system the twin incentives to invent and invest are encouraged. Under that system an economic climate conducive to maximum production is made possible. Under that system, therefore, world peace is promoted.

A number of patents of considerable interest are in this month's batch. Practically all of them fall in the drug catagory. No patents in the cosmetics field were deemed worthy of special note. The vitamin field appeared to be the most prolific.

Vitamin A

Nicholas A. Milas continues to add to his collection of U. S. patents dealing with the synthesis of vitamin A. His latest patent (U. S. 2,432,921), assigned like the others to Research Corporation, covers an intermediate in the synthesis of the vitamin and a process for making the intermediate.

Coatings for Medicaments

The trick in making suitable coatings for medicaments is to find a coating which protects the medicament until the latter reaches the locale where it is to do its work. Thus, a number of substances have been proposed for applying an enteric coating but according to Springett, who just won U. S. Patent 2,433,244, assigned to Parke, Davis, none of them combine all of the advantages of resisting penetration of the coating by the stomach secretions during the time the coated products are in contact with them, while at the same time being able to break up and releasing the medicament, as desired, in the intestinal tract. Another desirable attribute of the coating is that it should be easy to apply on the medicament.

Springett asserts he has found a coating which meets the requirements. In his own words:

"Heretofore it has been proposed to use cellulose esters and cellulose ethers containing free carboxyl groups. I have found that such esters or mixtures of esters and ethers, when made up in organic solvent and poured, or sprayed, or otherwise coated onto medicaments, result in enteric coatings which are to a certain extent satisfactory from the standpoint that they may pass through the stomach without disintegrating and will break up upon reaching the intestines. However, I have found that they are totally unsatisfactory for a commercial coating process, due to the fact that they must be highly diluted by solvent in order to give preparations which can be quickly and uniformly applied in the usual large scale commercial coating methods. These known liquid cellulose derivative compositions require a great many separate applications to the medicament in order to build up a satisfactory dry coating of sufficient thickness. It is quite important that the liquid be

applied a sufficient number of times, with adequate drying between coats, since the final dry enteric coating must be of such thinkness that the stomach secretions do not penetrate the same during the considerable period of time in which the coated tablet or pill normally remains in the stomach.

"I have now found that cellulose esters of polycarboxylic acids containing free unesterified carboxylic acid groups can be combined in certain proportions with a lac, or resinous plant or insect exudate, of the type of shellac and the combination dissolved or taken up in a common solvent to give liquid preparations of exceptional value in the process of applying a coating quickly and effectively to medicaments and other products intended for oral ingestion.

"I have further found that the dry coatings obtained from such liquid preparations dissolve with satisfactory rapidity in the intestines, in spite of the presence of large quantities of lac in such dry coatings. For example, it is known that enteric coatings consisting of shellac, when made thick enough to stand up in the stomach, do not dissolve as rapidly or as completely in the intestines as they ought to for the proper release of medicament. My new coatings are definitely superior to straight shellac coatings in this respect.

"In carrying out my invention, I may use, as cellulose derivatives containing free carboxyl groups, any of those made by known methods of preparation, such as those disclosed in United States Patents Nos. 2,093,462 and 2,093,464 and also 2,126,460. For example, cellulose or its derivative containing free hydroxls can be reacted with a polycarboxylic acid acylating agent, such as an anhydride of the polycarboxylic acid in the presence of a base, or in the presence of a solvent and in the absence of an organic base. The esters of cellulose may be simple esters of polycarboxylic acids or may be mixed esters wherein more than one king of polycarboxylic acid group is present. They may be also esters of such acids which also contain cellulose ether groups of the mixed ether-ester type.

"I may use the reaction products of polycarboxylic acid anhydrides with cellulose or its esters or ethers or ether-esters containing free hydroxyls capable of combining with the acid anhydride to form an ester linkage and also leaving free carboxylic acid groups present. Such anhydrides are, for example, phthalic, succinic and maleic anhydrides. Examples of cellulose derivatives which may be acylated are cellulose acetate, propionate, acetate-propionate, acetate-butyrate, and ethers of cellulose such as ethyl cellulose, benzyl cellulose, etc., containing free hydroxyls in the cellulose part of the ester.

"I prefer to use non-toxic mixed cellulose esters of lower monobasic fatty acids and a polybasic acid, such as phthalic acid, with at least one free unesterified carboxylic acid group, e.g., cellulose-acetate-propionate-phthalate and the like. Free carboxyl need not be present in molecular proportions but the ester, including the ether-esters, may have any free carboxyl content from only a few percent up to about 25 per cent. A free carboxyl content between about 10 and 15 per cent has been found to be the most preferable."

Stable Vitamin C Compositions

It is well known that vitamin C is not as stable as desired and that the use of ascorbic acid in pharmaceutical dosage forms has been attended with serious loss of vitamin C potency.

Such deterioration is especially troublesome in multi-vitamin products, particularly where there was exposure to water or moist air. Loss in potency has even been noted during the preparation of the multi-vitamin compositions, caused by the simple addition of the ascorbic acid to vegetable oils.

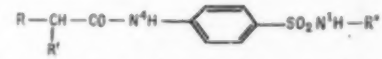
To make matters worse, nicotinamide, another common ingredient in multi-vitamin preparations is somewhat incompatible with ascorbic acid, especially when water is present.

Fox and Opferman now come along and suggest in U. S. Patent 2,433,688, assigned to Gelatin Products Corporation, that the vitamin C stability can be materially improved by causing ascorbic acid and nicotinamide to combine to form nicotinamide ascorbate, and then using this additional product as an ingredient in the multi-vitamins composition. Laboratory tests are said to have indicated that the vitamin C stability was not measurably diminished over a period of three weeks.

New Intestinal Antiseptics

Hoffman-LaRoche recently obtained a U. S. Patent, No. 2,430,051 issued on an invention of M. W. Goldberg and S. D. Heineman.

The invention relates to new water-soluble sulfanilamide derivatives which are characterized by the presence of a heterocyclic ring in position N_1 of the sulfanilamide molecule and of an aliphatic acyl rest substituted by a quaternary nitrogen group in position N_4, and which are illustrated by the general formula:



wherein R stands for hydrogen or alkyl, R′ for a qua ernary nitrogen radical and R″ for a heterocyclic ring

These compounds *form a new group of intestinal antiseptics.* Practically all of them were found to have a very pronounced action against the intestinal bacterial flora, being superior in this respect to the known sulfanilamide derivatives. The new compounds are highly soluble in water. In spite of their solubility it was found, however, that they are only very slowly and incompletely resorbed from the intestinal tract, and that only very low blood levels are therefore observed after their oral administration. These are said to be very desirable properties for compounds since in consequence of the incomplete resorption the occurrence of renal complications, so common with the known sulfanilamide derivatives, is avoided. The new compounds are said to represent, therefore, a group of useful intestinal antiseptics of low oral toxicity.

Other Patents

U. S. 2,430,455—**Parke, Davis—Reaction Products of S-Benzyl Penicillamines and G-Penaldates. Pencillin Intermediates.**

U. S. 2,430,467—**Glidden—3-Amino Derivatives of Steroids.**

U. S. 2,430,678 and 2,430,679—**Purdue Research Foundation—Quinoline Thiols and Disulfides.**

U. S. 2,430,740—**A.E. Sharples—Therapeutic Dressing Having Therapeutically-active Fibers made from Boric Acid.**

U. S. 2,430,822—**Atlantic Refining—Chlorination of Isopropylbenzenes.**

U. S. 2,430,946—**Chas. Pfizer & Co.—Purifying Crude Penicillin (with diazotized aryl amine).**

U. S. 2,430,988—**Parke, Davis—Steroids.**

U. S. 2,431,285—**Winthrop-Stearns—Process for Preparing 1-(Dihydroxyphenyl)—2-Amino Butanol-1 and Intermediates.**

U. S. 2,431,419—**Sulphite Products—Recovery of Vanillic Acid.**

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More European Beauty Masks

In future comments on the preparation and use of beauty masks, the European authority, F. Winter (Alchimist *1:287, 1947*) *gives additional formulas for making these products. Thus, a face pack for any skin can be made from:*

Kaolin	80
Starch	10
Cold cream	20
Cetyl alcohol	2
Hydrophylic oil	5
Water	sufficient

Melt the cold cream and the cetyl alcohol in warm water and then add the oil and the powders.

An absorbing mask for greasy skin contains:

Kaolin	80
Magnesium carbonate	15
Starch	5
Tragacanth gum, powdered	1
Water	sufficient

By adding 5 parts of triethanolamine it is possible to obtain a very pronounced degreasing action.

An acid mask is provided in the following formula:

Kaolin	90
Talc	10
Cold cream	7
Cetyl alcohol	3
Lemon juice	20
Tragacanth, powdered	1
Water	sufficient

Varnish masks cause marked tightening of the skin. They are applied in the form of a transparent pack or an opaque unguent; this last being obtained by adding powders, like kaolin, talc or zinc oxide, to the varnish base. A typical transparent liquid face pack is made as follows:

Gum arabic	37.0
Boric acid	0.3
White dextrin	2.0
Water	140.0

Soften the gum in the water, add the other ingredients and dissolve by heating slightly. Finally add the following solution, prepared by dissolving the ingredients with the aid of gentle heat:

Alcohol	9.00
Cetyl alcohol	2.00
Camphor	0.20
Preservative ("Nipagin")	0.15
Menthol	0.1-0.20

A gelatin mask, which has a contracting effect on the skin, is prepared from:

Gelatin	10.00
Water	50.00
Camphor (dissolved in a little alcohol)	0.05
Zinc oxide	3.00
Kaolin	5.00
Titaniumdioxide	2.00

Heat before use and apply when warm. For cold application, soft gelatin pastes containing more water are used.

Mixed Emulsifiers in Water-in-Oil Emulsions

It is often stated, notes K. Munzel (*Pharm. Acta Helvet.* 22:247, 1947), that a combination of several emulsifiers is more effective than a single one in the preparation of water-in-oil emulsions. His experiments show that, in general, this is not true. Although in some cases mixed emulsifiers gave a high degree of dispersion, this was due to conditions favoring the dispersion process, and the dispersity decreased considerably on storage. A cholesterol-lanolin combination was somewhat exceptional in that the dispersity became more uniform on keeping. Mixed emulsifiers may improve the stability of an ointment if one of the components increases the stiffness of the oil phase, but such preparations are too firm for practical application. The results are greatly influenced by the nature of the fatty base. When an emulsifier is effective in a particular base, then either it forms a film at the interface or it alters the consistency of the base, or both. In making water-in-oil emulsions a number of factors must be distinguished: the initial dispersion is a measure of the efficiency of the method of dispersion; the water-absorbing power is a measure of the ability of the mixture to form a "foamlike" structure with a large proportion of water; and the stability, or degree of decrease of dispersion on storage, is a phenomenon depending on the combined effect of a number of factors such as temperature, strength of film, consistency, crystallization of the fatty base, and the like.

Henna Preparations

Some interesting facts and uses for henna are given by J. Rae in the Manufacturing Chemist and Manufacturing Perfumer (18:559, 1947). *Employed since ancient times, henna consists of the dried leaves of* Lawsonia alba, *a shrub indigenous to Arabia, but cultivated in North Africa, India, Ceylon and various tropical countries. Egypt is the principal source of commercial henna.*

Henna shampoos have been sold for many years. The following formula is typical of a henna liquid shampoo:

Henna leaves, in coarse powder	10 parts
Boiling water	100 "
Infuse for one hour, filter and add:	
Soft soap	300 "
Dissolved in:	
Alcohol	200 "
Finally add:	
Distilled water, to make	1,000 "

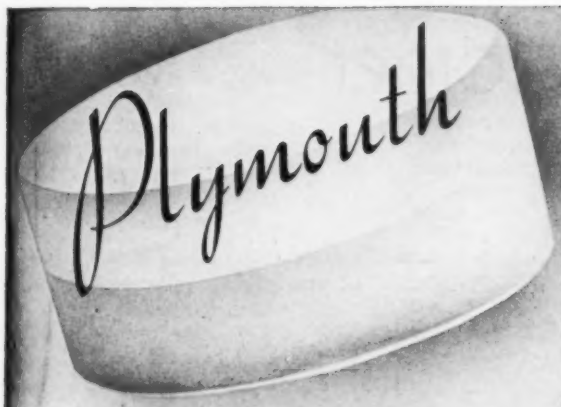
A good concentrated solution of henna can be made from:

Coarsely powdered henna leaves	1 part
Boiling distilled water	5 "

Infuse for 12 hours and press. This solution may be preserved with chloroform or with one of the esters of benzoic acid. When required for use, one part or more should be added to ten parts of a good liquid coconut oil shampoo or to a liquid soapless shampoo. Where a henna shampoo powder is desired, the following may be used:

Powdered soap	9.0 parts
Sodium carbonate, exsiccated	3.0 "
Borax, powdered	3.0 "
Henna leaves, powdered	1.5 "

When used as a hair dye, the powdered leaf is generally applied to the hair as a thin paste as hot as can be borne. About 7 ounces of the powder is required. The paste is prepared by mixing the henna



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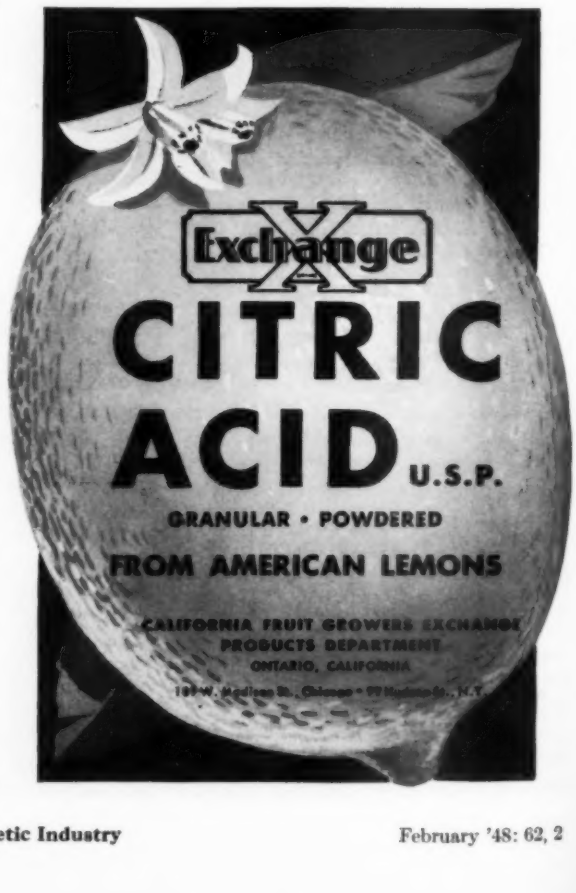

with nearly boiling water on a water bath, on which it is allowed to stand for 10 minutes so that the coloring matter is fully extracted before being applied to the hair. The tint will depend upon the length of application. Shades varying from light brown to black can be obtained by the addition of powdered henna of varying proportions of the following:

Pyrogallic acid	5.15%
Copper sulphate	5.10%

A henna brilliantine, with little if any dyeing properties, but which has proved quite popular, consists of:

Powdered henna	5 oz.
Mineral oil	1 gal.
Perfume	sufficient

Macerate the henna in the oil on a water bath for 12 hours, filter and add the perfume.

Despite its extensive use for cosmetic purposes, up to a few years ago, very little was known about henna's chemical composition. In 1938, Cox made a very full investigation of the constituents of the leaf and isolated the active coloring matter, which was found to be 2-hydroxy-1:4-naphthaquinone and to be present to the extent of about 1 per cent. Six percent of gallic acid was found, but no tannin. Recently 2-hydroxy-1:4-naphtha quinone of a purity of about 95 per cent has been made commercially available under the name Lawsome. The tinctorial value is 100 to 150 times that of henna leaf and it makes the production of preparations of standard color a simple matter. Mixed with an inert medium of a non-alkaline nature such as fuller's earth the powder may be sold as synthetic henna. The absence of gallic acid, the presence of which in henna sometimes interferes with the dyeing, is a distinct advantage. It is sometimes suggested that, when this material is used with a soapless detergent, boric acid be added, but citric acid is better.

Skin Tonics and Lotions

Lotions, tonics, beauty milks and special astringents are currently experiencing a fashionable revival, says H. Janowitz in *Soap, Perfumery and Cosmetics* (20:360, 1947). Water, of course, remains the most important ingredient of such products and it should not be overlooked merely because of its familiarity. He feels that the alcohol content of skin tonics and facial lotions should be as low as possible; the higher percentages being reserved for astringent lotions. For its preservative action, alcohol is suggested in acidic lotions in a proportion of about 15 per cent, and in slightly higher proportions, around 17 to 20 per cent, for alkaline lotions.

Cleansing lotions, both clear and emulsified, cover a wide field. Clear lotions of this class may be either plain or suitably "superfatted" solutions of wetting agents. Cleansing milks, including beauty milks, facial milks, almond milks and the like, are combinations of a soap as a cleansing agent, an oil to lubricate, and water as the main vehicle. A suitable emulsion may consist of light mineral oil, stearic acid and triethanolamine and water. Intermediate between cleansing lotions and skin tonics are the borated glycerine lotions or glycerine of borax lotions. A typical formula is as follows:

Glycerine of borax	9 parts
Glycerine	16 "
Rosewater, witchhazel solution, or water	75 "

Simple skin tonics normally consist of a weak acid, like boric acid, dissolved in alcohol and water, with a little glycerine. The perfume used should be definitely non-irritating, or the tonic will do more harm than good. Janowitz has a strong preference for old-fashioned constituents of skin tonics and lotions. Among these are witchhazel solution, camomile infusion, peppermint and clary sage waters, juniper berry tincture, ordinary tea infusion and fruit and vegetable juices like those of cucumber, carrot, lemon, orange and pineapple.

Strong astringents, containing 40 per cent alcohol, with boric acid, zinc sulfocarbolate, alum, etc., are intended only for occasional use on oily skins. Milder astringents are formulated as for tonics, but in addition contain a little alum or other astringent materials. A "really good" mild astringent consists of:

Lactic acid	0.5 parts
Alum	0.5 "
Menthol	0.1 "
Glycerine	3.0 "
Alcohol	15.0 "
Water	80.9 "

F. D. & C. Colors and B Vitamin Stability

In view of the extreme sensitivity of certain vitamin B complex factors to heat, light, chemicals and changes in pH, H. C. Epley and A. G. Hall (Am. J. Pharm. *119:399, 1947*) *decided to determine the stability of certain of these factors toward various F. D. & C. colors. The results of this study indicate that certain vitamin B complex factors, especially riboflavin and pyridoxine are adversely affected by some F. D. & C. colors and that the indiscriminate use of F. D. & C. colors in liquid vitamin B complex preparations of synthetic origin should be avoided. Thiamin was stable toward all the colors tested except Red No. 3. Thiamin apparently slowly reacted with F. D. & C. Red No. 3, as a red precipitate slowly formed concurrently with the decrease of thiamin in solution. Yellow No. 1 and Green No. 3 apparently caused destruction of riboflavin, while Red No. 3 and Orange No. 1 seemed to protect it from photochemical destruction. Red No. 3, Yellow No. 1, Green No. 1, Green No. 3 and Blue No. 2 apparently caused destruction of pyridoxine. On the other hand, Red No. 2 and Yellow No. 5 seemed to give protection from photochemical destruction. Niacinamide was not affected by any of the F. D. & C. colors tested.*

Chemical Method for Removing Pyrogens

A chemical method for destroying "pyrogens," elusive fever-producing substances sometimes present in drugs given by injection into the blood stream, was announced in a paper presented before the Scientific Section of the American Pharmaceutical Association by A. Taub and F. Hart. They pointed out that the presence of pyrogens is one of the greatest hazards of producing drug solutions that are to be given intravenously. Relatively little is known about pyrogens, but they are thought to be products from bacteria that have been killed when the solutions are sterilized. Although these products are unable to cause disease, they can produce high and possibly dangerous fever. Therefore all injectable solutions are tested on rabbits before they are given to humans to make sure they are free from pyrogens. Taub and Hart set out to find a means of destroying pyrogens, which may be present, by chemical methods. Hydrogen peroxide was found to be effective for this purpose. The procedure not only destroyed the pyrogens, their data indicated, but left no by-products in solution that would have to be removed. Experiments showed that the method is suitable for removing pyrogens from physiological salt solutions and dextrose solutions. These solutions are commonly used by vein for treatment of shock and other conditions where intravenous administration is necessary.

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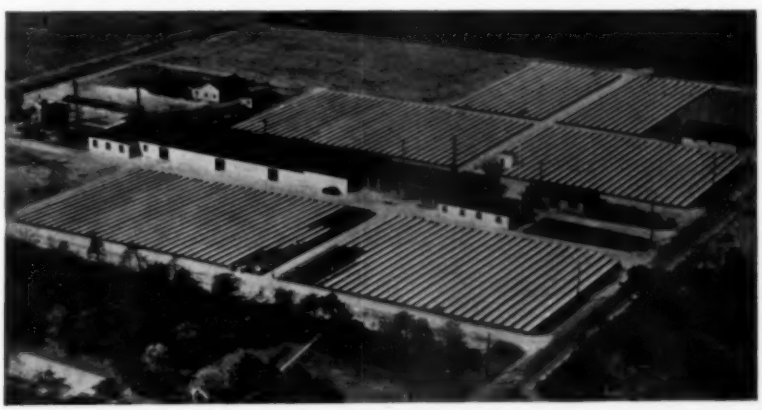

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Treatment of Procaine Dermatitis

Procaine dermatitis is an affliction from which many dentists have suffered since procaine came into common use. Some practitioners have been forced to retire or else resign themselves to considerable suffering because of their allergy to procaine. With these facts in mind, as well as his own sensitivity to procaine, E. Fowler (*Dental Survey* 23: 1419, 1947) set out to find a preparation to combat the condition. The result is the following preparation, known as Fowler's Compound, for the prevention and treatment of procaine dermatitis:

Anhydrous lanolin	**42.0**	**per**	**cent**
White petrolatum	**38.0**	"	"
Sterile water	**11.5**	"	"
Benzoic acid	**3.5**	"	"
Urea	**3.5**	"	"
Eugenol	**1.5**	"	"

Heat the water to 212° F. Add the benzoic acid and mix thoroughly. Allow to cool to 150° with continued stirring, then add the urea. Mixing thoroughly, add the lanolin, previously heated to 140° F. Heat the petrolatum to 140° F. and add to the mixture. When thoroughly mixed, add the eugenol. The compound, now a brownish color, is allowed to stand overnight. Next day, mix thoroughly and continue mixing until the compound assumes a cream color. Slight separation, which does not impair the efficacy of the compound, can be prevented by homogenization. Best results are obtained when the compound is made up in large quantities where a slight deviation has a negligible effect.

For treating or preventing procaine dermatitis, the hands should be scrubbed thoroughly with a mild pumice soap, then Fowler's compound is massaged into the skin to render inert any drug or chemical invasion. Fowler advises such application before making injections.

Acidity of the Scalp

O. Bergeim and T. Cornbleet (*Arch Dermat. & Syphil* 56: 448, 1947) made investigations to determine the possible relationships between the acidity of the scalp and the condition known as seborrhea. Although the relationship between acidity of the scalp and seborrhea remains unclarified and will require further study, these workers did make some noteworthy observations. They found that the human scalp has a distinctly acid reaction. The acidity usually varied between p_H 4.5 and 5.5. The acidity was due to lactic acid secreted in the sweat and, to a lesser degree, to volatile fatty acids which are believed to be formed from the lactic acid by micro-organisms on the scalp. The acidities observed were adequate to account for a definite antibacterial action for many types of micro-organisms and are believed to be of importance in the prevention of infections of the scalp. The accumulation of acids is believed to be not uncommonly associated with itching of the scalp, which is relieved by washing.

The results indicate a decided effect of washing on the p_H of the scalp, showing that several days may be required for the acidity to be restored to a more or less stable value. That the reduction in acidity after washing was not due to alkalinity of the soap used was shown by the fact that washing of the scalp with shampoos not containing soap, such as potassium lauryl sulfates the solutions of which had an acid p_H of about 6.2, gave similar results.

Salicylic Acid vs Gastric Ulceration

F. Pauls, A. N. Wick and E. M. MacKay (*Science* 107:19, 1948) have found that the experimentally-induced gastric ulceration of rats may be inhibited and in some cases entirely prevented by the administration of certain substances. In examining the activity of monohydroxybenzoic acids, one of them, *o*-hydroxybenzoic (salicylic) acid, was found to have a striking antiulcer action. The sodium salts were used and the therapeutic effect obtained whether the compound was administered intraperitonially, subcutaneously or intravenously. Administration of the active compound by mouth some little time before using the ulcer-inducing procedure showed that it is effective when given in this manner. Salicylic acid, it was noted, is not only a very potent antiulcer agent, it also reduces secretion of gastric juice. It was found that acetyl salicylic acid (aspirin) is almost as active as salicylic acid in the prevention of gastric ulceration. The activity of other related compounds is now under investigation.

Oral Penicillin in Vincent's Infection

A report by D. E. Ziskin, A. H. Kutscher and A. R. Clark (*J. Am. Dent. Assoc.* 35:627, 1947) indicates that the oral administration of penicillin may be valuable in the treatment of Vincent's infection. They found that orally administered penicillin was effective in controlling Vincent's infection of the gingivae in a series of 8 cases when compared with 3 controls. The spirochetes and fusiform bacteria were greatly reduced in numbers on the surface and in the gingival crevices early in the treatment period and only a few were seen by the end of the sixth day. On the basis of their observations, it is felt that the treatment of Vincent's infection by means of orally ingested penicillin plus scaling of the teeth had certain advantages over the latter method alone. These were as follows: The subjective symptoms were more quickly dissipated: scaling without pain was possible early in the treatment; septic symptoms after scaling were absent; the healing process appeared to be aided materially.

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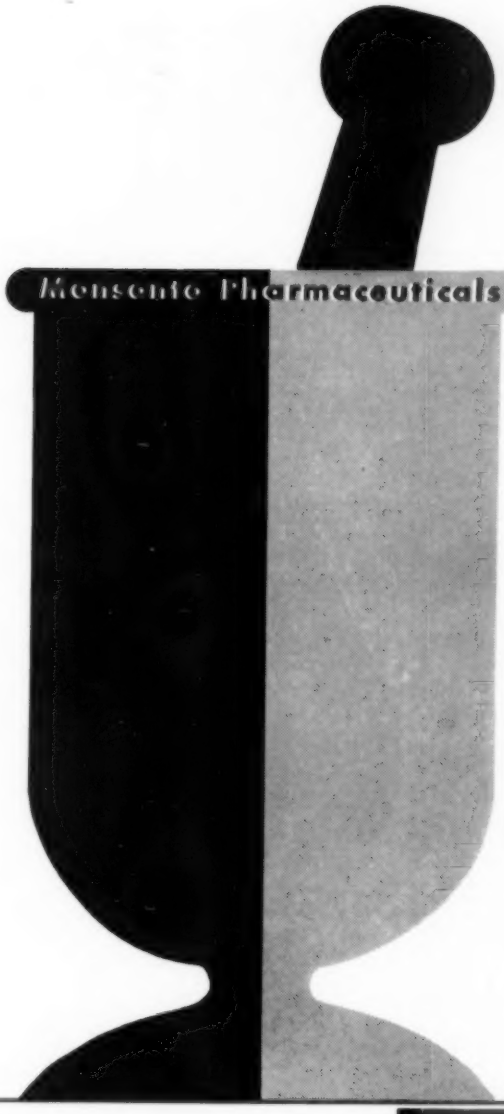

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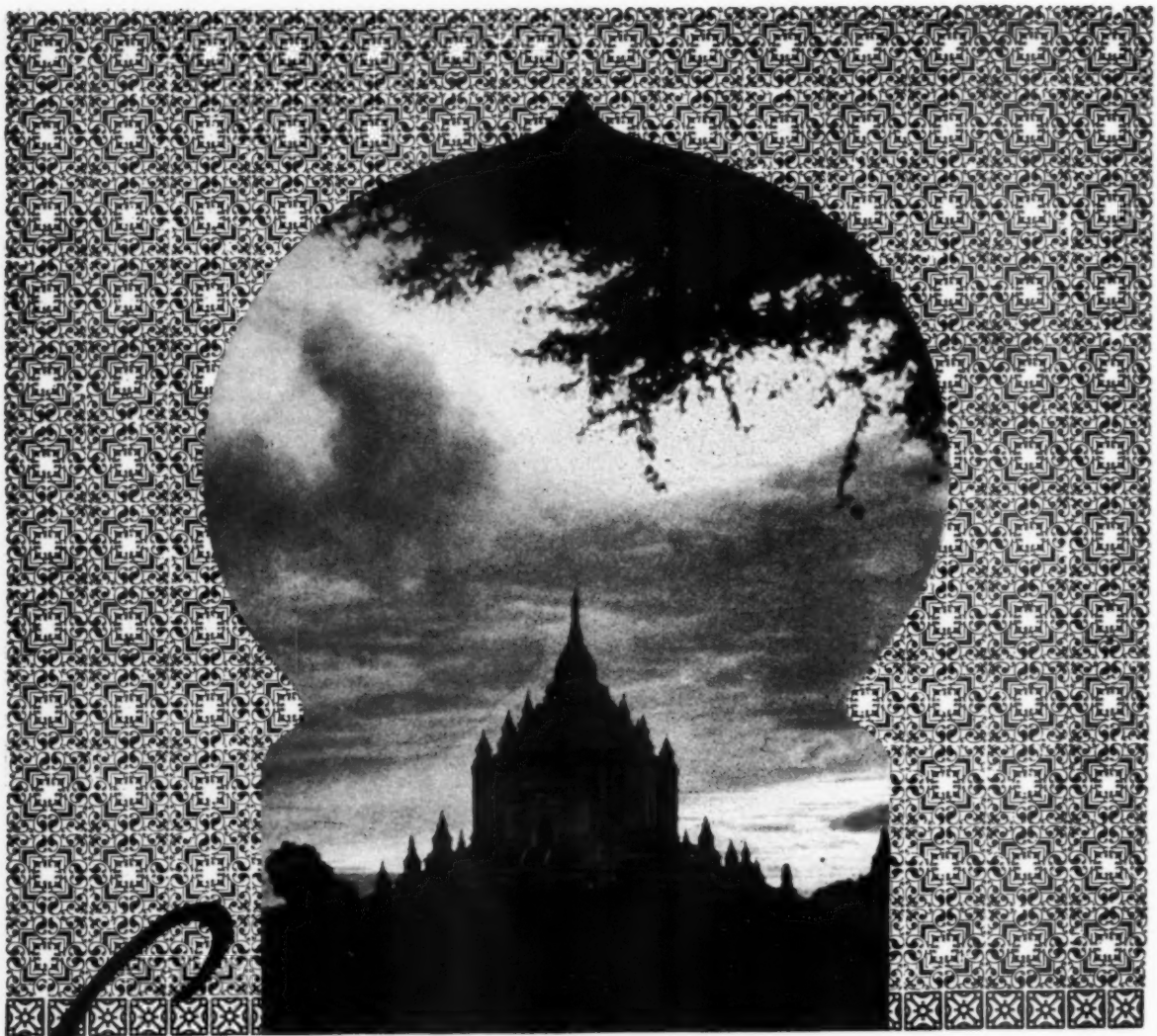

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offered in the report made at the National Institute of Health by H. Welch, H. L. Hirsch and S. R. Taggert (through *Science News Letter* 52: 210, 1947). They found that pectin can slow down the rate at which penicillin, streptomycin and other drugs escape from the body. Oil and wax (Romansky formula) have been used to prolong penicillin's action in the body. Pectin slows penicillin's escape from the body about the same as the oil and wax but, unlike these chemicals, it does no cause pain, abscesses or any of the other troublesome complications. It has been used in penicillin treatment of 350 patients without any unpleasant reactions.

Streptomycin's escape from the body is slowed even more effectively than penicillin's by use of pectin. The antibiotic action of a one-half gram dose can be maintained for two days. At present, six times this amount of streptomycin must be used each day to treat tuberculosis patients. Cost of the drug is one limiting factor in its wider use. But if only a twelfth as much need be used, the cost can be reduced to an almost insignificant amount. Trial of streptomycin-in-pectin for tuberculosis treatment is about to start at Freedman's Hospital in Washinton.

Drugs such as adrenalin and ephedrine which constrict small blood vessels also have their effect prolonged when they are combined with pectin. Study of pectin's effect on these drugs has so far been made only in laboratory animals, but they suggest great future benefit to asthma patients.

Sex hormones are now injected in oil preparations. Insulin's action is slowed by giving it with protamine. Pectin might be used with advantage in place of the oil and the protamine, laboratory studies suggest. So far, the pectin-hormone combination has not been tried on patients.

Thiamin for Painless Labor

In a report abstracted in the *American Review of Soviet Medicine* (4: 476, 1947), P. Shub states that he had found an apparent relationship between lack of vitsmin B_1 and labor pains. Investigations of the most suitable route of administration showed that intramuscular injections met all requirements when given in 60 mg. doses to control labor pains. If pain reappeared an additional 40 mg. was given. The analgesic effect of thiamin appeared within 10 to 15 minutes and lasted till the end of labor in 40 per cent of cases. In 51.2 per cent the effect was somewhat less, in 3.2 per cent it was of short duration, and in 5.6 per cent the injection failed. The method proved harmless for mother and newborn. Thiamin was found to strengthen uterine contractions and reduce the duration of labor to one-half.

Fibrin Foam Plus Penicillin

A new method for maintaining high local concentrations of penicillin is suggested by G. S. Baker and C. Smith (*Military Surg.* 101: 208, 1947). This is achieved by using fibrin foam and thrombin saturated with penicillin. The bacteriostatic activity of the penicillin is not inhibited nor is the hemostatic effect of the fibrin foam and thrombin reduced when the two are combined with penicillin. Because of the hemostatic property of the combination it is useful during operative procedures as well as in the treatment of acute or chronic contaminated wounds. They cite a case in which, following the initial sequestrectomy with a tear in friable dura, meningitis, encephalitis or cerebrospinal rhinorrhea did not develop. They attribute this fact largely to the use of fibrin foam saturated with penicillin and thrombin.

Treatment of Vaginal Trichomoniasis

The usual symptoms of trichomoniasis of the vagina are irritation and itching of the vulva, leukorrhea frequently, and urgency. According to W. J. Reich, H. L. Button and M. J. Nechtow (*Surg. Gynec. & Obst.* 84: 891, 1947), this condition may be controlled by a powder mixture of silver protein, kaolin and beta-lactose. For elimination of the trichomonads, the vaginal tract is swabbed dry and insufflated with 2 to 4 Gm. of powder consisting of:

Argyrol, finely pulverized	20 per cent
Kaolin	40 " "
beta-Lactose	40 " "

For home treatment the patient, even if menstruating, is instructed to douche nightly with two quarts of warm water containing four tablespoonfuls of white vinegar and to insert a gelatin capsule filled with 4 Gm. of the argyrol, kaolin and beta-lactose powder. The night before re-examination, in one week, the douche is used but not the capsule. The patient is also instructed in cleanliness and hygiene and is made aware of all possible sources of reinfection. During treatment, the patient should douche and insert a vaginal capsule before and after intercourse.

Prickly Heat Treatment

In the *British Medical Journal* (2: 779, 1947) it is noted that prickly heat or miliaria is a perpetual source of irritation and annoyance to the white man in tropical climates, and among the many remedies recommended there are none that receive much praise. Prickly heat presents a fine, superficial, vesicular eruption and erythema related to the sweat ducts, is readily evoked by exercise, and is associated with intense itching. It affects especially those parts of the skin which are normally covered, is aggravated by friction, and may last from a few days to a few weeks according to the severity of the attack. Numerous theories relating to diet, salt and water metabolism, and infection have been put forward to explain the disease, but none has proved satisfactory or established a basis for treatment.

Recently, J. P. O'Brien (*Brit. J. Dermat.* 59: 125, 1947) has made an exhaustive histological study of the disease and brings forward strong evidence to support the view that it results from the degreasing effects of the "civilized toilet' of the white man in relation to clothes, washing, the use of soaps, powders, and lotions, and the application of alcohol to harden and protect the skin from bites. The effect is to deprive the skin of its sebaceous secretion, with the result that a keratin ring closes the orifice of the sweat duct and a vesicle of sweat collects in the upper epidermis and provokes a secondary reaction. If an area of skin is smeared with anhydrous lanolin this horny occlusion is prevented, and exercise will now provoke profuse sweating ove rthis area but no vesicular eruption; O'Brien calls this "the lipoid response." Natural cure results from exfoliation of the keratin plugs, and painting with 10% salicylic acid in alcohol for two to four days will cause effective peeling; the subsequent use of lanolin prevents relapses. For prophylaxis he advises loose, brief clothing washed daily, and inunction of the body with lanolin once a week. Soap should be used only once a day, hot water should be avoided, and powders should be applied only to the axillae, groins, and feet.

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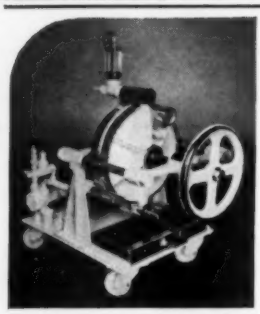

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Industry's Books

Nutritional Disorders of the Nervous System, by John D. Spillane, B.Sc., M.D. (Wales, M.R.C.P. (London), Assistant Physician and Neurologist, Cardiff Royal Informary, 280 pp., Williams and Wilkins Co., Baltimore, $5.

This monograph was written as the result of the author's personal experience during the recent war. The origins of many disorders of the human nervous system are quite obscure and theories already advanced—aplasia, inborn errors of metabolism, injury, infection, toxaemia, allergy and the like—have helped little. Now, however, it may be said that the clear association between defective diet and certain neurological syndromes described in this book should draw attention to the role of nutritional disturbances, antenatal and postnatal, in the production of maladies of the nervous system. Contents: The Vitamin B. Complex—Pellagra—Beriberi—Polyneuritis—Wernicke's Encephalopathy—Nicotinic Acid Deficiency Encephalopathy and Allied States—Subacute Combined Degeneration of the Spinal Cord—Nutritional Neuropathy in Warm Climates—Nutritional Neuropathy in War-Time—Personal Experience, 1942-46—The Gastro-Intestinal Tract and Nutritional Neuropathy—General Conclusions.

Formulary, Second Edition, University Hospital, Ann Arbor, 422 pp., $3.75.

Prepared especially for the convenience of the interns and staff of the University Hospital, this Formulary is intended to serve as a readily accessible reference for commonly used drugs available from the Pharmacy. The basic form used in the first edition has been followed throughout. A new section on amino acids including aminoacetic acid, methionine and protein hydrolysates has been added. The analgesics methadon, dihydroergotamine and metopon have been included. Pyribenzamine has been included with the antihistamine drugs. The section on antibiotics has been rewritten and bacitracin added. Table of Contents: GENERAL INFORMATION—Conversion Tables, Apothecaries and Metric Equivalents, Prescription Writing, Abbreviations. MEDICINAL AGENTS—Amino Acids, Antihistamine Drugs, Anti-Infectives, Autonomic Drugs, Cardiovascular Drugs, Central Nervous System Depressants, Central Nervous System Stimulants, Diagnostic Agents, Ear-Nose and Throat Preparations, Eye Preparations, Gastrointestinal Drugs, Generative Drugs, Hematinics, Hormones and Synthetic Substitutes, Local Anesthetics, Parenteral Solutions, Respiratory Drugs, Serums and Vaccines, Skin Preparations, Urological Drugs, Vitamins.

Diseases of the Chest—Diagnosis and Treatment—by Archibald Reynolds Judd, M.A., M.D., F.A.C.S., Thoracic Surgeon for State of Pennsylvania, State Sanatorium, Hamburg, Pa., 608 pp., Illus., F. A. Davis Co., Phila., $9.

The fundamental facts in the anatomy and physiology of the respiratory systems have here been given to provide a background for the better understanding of the subject as a whole. Beyond these two basic topics, the author has endeavored to present the fundamental facts in both tuberculous and nontuberculous diseases of the chest, always keeping in mind the purpose for which the book was developed, namely to provide a brief manual for general practitioners. Thus, the rarer conditions and excessive detail have been deleted, but an effort has been made to include suggestions which would prove beneficial to those not having ready access to libraries or a medical center. Tuberculosis, by virtue of its prominent position as a disease of the chest and the fact that, of all the important chest diseases, it is the least understood and most misrepresented, is accorded the most prominent place in the book. Other important pathological entities are similarly presented (except pneumonia and heart disease). Lung abscess, bronchiectasis, diseases of the pleura, silicosis, cystic disease, neoplasm, fungous disease, sarcoidosis, and traumatic injuries of the thorax are discussed. A section has been devoted also to a discussion and compilation of a group of miscellaneous subjects and diagnostic aids. These include bronchoscopy, hemoptysis, helpful hints in roentgenography, and specialized diagnostic procedures, such as the preparation of material for culture and animal inoculation, the Mantoux, Casoni, and Gordon tests, aspiration biopsy, and detection of blastomycosis.

Modern Biology, by Truman J. Moon, Paul B. Mann, James H. Otto, 664 pp., Illus., Henry Holt and Company, New York, $2.96.

Modern Biology is a text for the beginner. It is designed for the reader who has had no previous biological training. His study of biology begins with the most basic principles of life and continues through a series of units, arranged in logical sequence, to more complex concepts of the science of life. Throughout this study specific forms of life are used to demonstrate biological principles. The reader becomes acquainted with many forms of plant and animal life which exist about him. As he studies them, he becomes aware of the broad principles which govern the existence of all living things. But the study of plants and animals is not made secondary to a consideration of the principles demonstrated by living things. Nor is the reader expected to generalize, in the abstract study of comparisons of life forms, from an assumed background of biological knowledge which he may not possess. Rather, he pursues his study of biology much in the manner in which he would learn in the out-of-doors, by getting acquainted with plants and animals about him, observing their life activities, and comparing the life forms he meets. Modern discussions of the newest biological discoveries make for stimulating and informative reading. Here are only a few which Modern Biology includes: the Rh blood factor, antibiotics, insecticides, antiseptics, chemotherapy, vitamins and hormones, various new developments in the field of applied genetics. Many interesting illustrations add materially to the text and reader interest.

Perfumer's Shelf

Expressed Peach Kernel Oil

Formerly, the so-called peach kernel oil of commerce was obtained from apricot kernels, but this situation has been corrected. Peach pits are more difficult to dry and crack than apricot pits and the yield is smaller. For these and other reasons, true peach kernel oil has seldom, if ever, been manufactured in commercial quantities.

However, as pointed out by W. A. Bush and B. J. Cogan (*Ind. & Eng. Chem.* 39: 1452, 1947), the scarcity of edible and pharmaceutical oils and an improved commercial outlet for the by-product shells have resulted in the possibility of an oil pressing operation on a commerical scale. In their work, peach kernels, containing 42.3 per cent of oil, were pressed to produce peach kernel oil and oil-cake meal. The crude oil thus obtained has a yellow color and a strong flavor and odor of benzaldehydecyanhydrin. It was easily improved in flavor and lightened in color by simple treatment with an activated montmorillonite. The characteristics of the treated oil are:

Specific gravity, 15°C.	0.9224
Refractive index, 25.5 °C.	1.46990
Saponification value	191.4
Unsaponifiable matter, %	0.65
Iodine number (Wijs)	98.1
Acid value	0.67
Titer, °C.	11
Color (Lovibond)	25 yellow, 3 red
Flavor	Bland, mildly almondlike

Dermatitis Due to Oil of Citronella

H. Keil (*Arch. Dermat. & Syphil.* 8: 327, 1947) believes that the occurrence of contact dermatitis due to oil of citronella is probably far more common than the scant medical literature seems to indicate. Because these cases of dermatitis are seen chiefly during the summer, they are apt to be attributed to poisen ivy or other plants. To illustrate his views, Keil reports three cases of eczematous contact type hypersensitiveness to oil of citronella. The first patient had smeared some oil of citronella over his windows as a protection against mosquitoes. He recalled that the eruption had started the day after he used the oil. In the second patient itching developed at the site of application of "javanella" (an oil used to give laundry soap a pleasant odor). He recalled having knocked over a can of "javanella," at which time the oil had smeared his hands. There was a flare-up of his rash when he handled the oil. The third patient had used oil of citronella as a spray and also had rubbed it over various parts of the body as a protection against mosquitoes. Patch test studies indicated that the essential allergen in oil of citronella seems to be citronallal. In Keil's opinion, the widespread use of this and related oils in many common commercial products poses questions of considerable interest and complexity.

Antibacterial Action of Eugenol and Oil of Cloves

In the *American Journal of Orthodontics and Oral Surgery* (33: 458, 1947), H. A. Bartels reports his observations following investigations of the antibacterial properties of oil of cloves and eugenol, both of which are extensively used in dentistry. He found that microorganisms vary in their susceptibility to eugenol and to oil of cloves. Of the organisms tested, *E. typhi* and *Monilia albicans* were the most susceptible whereas *B. pyocyaneus* was the most resistant. Variation in hydrogen ion concentration had little effect upon antibacterial action. Tests were made at pH 6.0, pH 7.0 and pH 8.0. Dry zinc oxide has no apparent inhibitory effect upon growth of the microorganisms used in the study. Both oil of cloves and eugenol, incorporated into a paste with zinc oxide, retained definite inhibitory properties. An alcohol solution of eugenol was more effective than an aqueous suspension or a suspension in a detergent. Oil of cloves and eugenol were comparable in their effect upon bacteria.

Jasmine Production in Grasse

According to a report in the *Bulletin of the Imperial Institute* (45:17, 1947) The jasmine which is cultivated at Grasse for extraction of its perfume is *Jasminum grandiflorum* L., N.O. *Oleaceae* (Spanish or Catalonian jasmine). *J. grandiflorum*, is not cultivated at Grasse on its own root but is grafted upon the ordinary white jasmine (*J. officinale*), which grows wild over extensive areas of Southern Europe, including Catalonia, the Alpes-Maritimes and Italian Liguria and is also known in the northern parts of Europe, including Great Britain.

The two different methods which are used at Grasse for preparing the perfume for market are described briefly, as follows:

(1) *Enfleurage.*—Certain flowers, one of which is jasmine, continue to synthesize aromatic products after being removed from the parent stem, and for such flowers the use of "enfleurage" to extract the perfumery material is feasible. Briefly, the flowers are put on glass trays framed in wood, smeared with purified fat (lard or beef suet or a mixture of the two are most commonly employed), and are removed mechanically or by manual labor after one to two days, a fresh lot of flowers being added. The process is repeated until the fat is suitably saturated with essential oil The oil-containing fat finally obtained is treated with an equal weight of 96 per cent alcohol to dissolve the essential oil. On concentration of the alcoholic solution, followed by cooling, to separate some of the fat, a flower "concrete" remains. When the "absolute" from the flowers is required, this concrete is dissolved in alcohol and the solution is cooled to —15° C., when most of the wax separates out, leaving a maximum of 50 per cent of absolute. Such a jasmine absolute is naturally expensive and finds a use in the finest perfumes only. In connection with this process is should perhaps be noted that, in order to avoid waste, the treated flowers may afterwards be extracted with a volatile solvent so as to obtain the residual "oil from frames," a second-grade product.

(2) *Solvent extraction*, using petroleum ether or crystallizable benzene. The process is carried out in one of several different kinds of apparatus, each designed with the object of efficiently extracting the fats, waxes and essential oils from the flower-heads. One kind of apparatus used for this purpose is of cylindrical shape, and is fitted with perforated shelves on which are thin layers of the flower-heads. After loading the shelves with flower-heads, the apparatus is closed, and the flower-heads are thrice extracted with solvent, which is subsequently led off to the concentrator, solvent remaining in the flowers being recovered by steam distillation and separation in the customary manner. In the concentrator the solvent is removed in vacuo and the commercial jasmine "concrete" remains behind. This "concrete" consists not only of essential oil, resins and fatty

glycerides, but also of insoluble waxy matter. From it jasmine "absolute" can be prepared by extraction with a sufficient quantity of absolute alcohol to dissolve the essential oil. The solution so obtained is cooled to a low temperature by means of a cooling agent, when most of the waxes separate out. The resulting liquid is then submitted to a treatment similar to that described above for jasmine "absolute."

The several processes are carried out so that the lowest possible temperatures are maintained and the fragrance of the residuum is unimpaired. The comparative value of the two processes described above has led to much discussion, but it now seems clear that the relative yield of volatile oil obtained by steam distillation of the absolutes is 2½-3 to 1 in favor of enfleurage. One investigator, however, is of the opinion that, despite its inferior yield, the solvent process is preferable because it recovers precisely those odorous compounds, which, owing to their inferior volatility, remain behind in flowers subjected to the enfleurage process.

Lemongrass Oil from Tanganyika

In 1945, report H. E. Coomber and D. J. Cosgrove (*Bull. Imperial Inst.* 45: 3, 1947) attention was drawn to the fact that a certain firm producing lemongrass oil in Tanganyika was experiencing difficulty owing to the falling off in the citral content of their product. Normally it contained a full 80 per cent of citral as determined by the bisulphite method, but towards the end of 1944 consignments were produced which, when tested, showed a citral content of only 76 per cent.

With a view to ascertaining the possible cause for this decrease in citral content various samples of oil were examined at the Imperial Institute. These oils had been distilled from grass cut at different times of the year. Investigations of the several factors that could account for the fall in citral content indicated that the depression in citral content was probably brought about by too frequent cutting of the grass. In the case of the Tanganyika samples there was an average of six cuttings per year. This rate, according to available information, is much in excess of that usually followed, which is three to four times per year, according to the rainfall. While conditions of soil and climate must have a great influence on the number of cuttings which are possible each year, it is doubtful whether the grass is fully mature when cut so frequently as an average of two months per cutting. A number of workers have demonstrated that the distillation of immature grass furnishes an oil which is low in citral. Another factor affecting the yield and quality of the oil which must not be overlooked is that lemongrass rapidly exhausts the soil; for this reason the grass should be transplanted every three years or so. The method of distillation, too, must be rigidly controlled. In this connection it has been stated that higher pressures of steam (of the order of 20 lb. per sq. in.) increase the yield of oil but decrease its citral content in comparison with distillation carried out with steam at lower pressures of about 10 lb. per sq. in.

From examination of the samples and consideration of the several factors, the investigators conclude that the grass must be fully mature before cutting, which probably means reducing the number of cuttings per year, and that the grass should be cut after a spell of dry weather.

Argentine Essential Oil Sources

The essential oils in plants native to the Argentine republic and in border lands have been considered by G. A. Fester (*Ciencia e invest.* 3:237, 1947). In the subtropical part of the Argentine may be obtained petit-grain oil from *Citrus bigaradia* and cedar oil from *Cedrela fissilis*, but both have attracted little attention. The essence of *Bulnesia sarmienti* was prepared in Germany from the exported raw material and used under the name Guayac essence as a fixative in perfumery. In the silvatic district of the Cordilleres is found *Peumus boldus*, which contains cymol, eucalyptol, and ascaridol, and *Laurelia aromatica* and *Laurelia serrata*, both containing safrole. In the dry zone, particularly the Sierra de Cordoba, grow a number of species with mentholic odor. Some of them are acclimated plants such as "yerba mota" and "yerba buena." Native are the following species: *Lippia turbinata*, *L. integrifolia*, *L. polystachya*, *Hedeoma multiflora*, *Bystropogon mollis*, *Micromeria odora*, *M. boliviana*. The essence of *Bystropogon* contained *l*-menthone, pulegone, and a small quantity of *d*-isomenthone. The presence of *d*-rotating ketones explains the weak *l*-rotation of 0.56°. An essence prepared from *Tagetes filifolia* resembled citrus essences while the fresh plant has an odor resembling esterified geraniol. The first fraction of distillation was *d*-limonene, in the second fraction citral was identified. The extract of *Tagetes minuta* was used as an anthelminthic and diuretic but has become obsolete because of toxic reactions. However, the use in perfumery seems to be promising.

Sesquiterpenes of Bitter Orange Oil

A study has been made by Y. R. Naves (*Helv. Chim. Acta* 29: 1084, through *Chem. Abstr.* 41: 6882, 1947) of the fraction of oil of bitter orange boiling above 105°C. Aside from small amounts of *d*-nerolidol and farnesol, a major part of the fraction consists of other tertiary alcohols, $C_{15}H_{26}O$, and another part consists of secondary bicyclic alchohols, $C_{15}H_{24}O$, belonging to the group derived from cadalene. In the $C_{15}H_{24}O$ group, Naves found a tricyclic alcohol which could be degraded into guaiazulene and a monocyclic alcohol resembling bisabolol.

Brazilian Sassafras Oil

The properties of Brazilian sassafras oil, as given by R. D. Machado (*Bol. divulgacao inst. oleos*, through *Chem. Abstr.* 41: 7058, 1947) are as follows:

Specific gravity at 25°C.	1.0760–1.0910
Index of refraction at 20°C.	1.5251–1.5363
Specific rotation at 25°C.	−0.91 to −2.40
Safrole	84–90%
Congealing point	+8.0 to +9.3°C.

Perfumery Literature Origins

Books, many long forgotten, that date back to the sixteenth century, on cosmetics, beauty advice, medicine, liquor, pharmacy and alchemy, were the forerunners of a rich literature of perfumery that has developed through the ages, according to an address by E. Sagarin at the December 3rd meeting of the Society of Cosmetic Chemists.

Many of these are not to be found in American libraries, or exist in this country in but a single copy. Many illustrious authors have written perfumery books. Sagarin cited a practically forgotten work of the famous French prophet, Nostradamus, printed at Lyons in 1555; a satirical and rather ribald essay by Benjamin Franklin on perfumes, and an abundant group of historical, romantic, formula, and technical works, and even a novel based on perfumes. The early literature concerned with perfumes was not only linked with that of cosmetics, but also with intoxicating beverages, both perfume and liquor studies being parts of the subject of distillation.

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Abreast of The Markets

Mounting Demand for Raw Materials Exists In All Countries. Large Chemical Foreign Trade Predicted.

World Chemical Developments, 1940-1946, Part I, has been published by the Chemical and Drug Division of the Office of International Trade, C. C. Concannon, Chief. Resuming the series of annual reviews of the world chemical situation, the booklet covers outstanding chemical developments in most countries of Europe and the British Commonwealth. Part II, covering areas not included in Part I, will be issued in 1948.

The publication presents a broad review of chemical industries in the countries covered and includes data on production, supply and demand, and foreign trade. Changes caused by the war and postwar progress toward recovery have been highlighted and special emphasis has been given to reconversion activities in 1946.

This booklet is available from the Superintendent of Documents, Washington 25, D. C., for 30 cents.

The United States is not only the outstanding world supplier of chemicals but is also a leading importer of chemical products from all markets—$252,000,000 worth in the first 9 months of 1947. Imports may reach an even higher total in 1948.

The United Kingdom, France, Belgium, Netherlands, Norway, Sweden, in fact all European chemical manufacturers, will be able to ship chemicals in varying amounts in 1948. On the whole, the commodities exported will be principally those products which entered into prewar trade. There is a definite trend toward reestablishment of an appreciable share of world chemical trade along a pattern similar to that of 1936-39, except in the case of Germany and Japan.

Markets for United States chemicals and allied products exist in practically all countries and 9 months exports were valued at $661,000,000, more than the $574,000,000 exported in 12 months of 1946 and more than 4 times as much as 1938 exports. The European market is currently the largest, consuming 29 per cent of our chemical exports, compared with 26 percent for North America, 19 percent for Asia and South America, 4 percent for Africa, and 3 percent for Asia.

Shipments to Europe were valued at $193,000,000 in the first 9 months of 1947, compared with $185,000,000 in 1946, and $56,000,000 in 1938. Exports of chemical products to Canada, our largest single customer, totaled $89,000,000, only $3,000,000 less than in the entire year 1946, bringing the total for North America to $174,000,000, which gave it second place among world areas. India was our principal market in Asia. Argentina and Brazil were leading purchasers of the $122,000,000 worth of chemicals exported to South America.

A mounting demand for chemicals and allied products exists in practically all parts of the world, but the outstanding problem now is which nations will be able to meet these needs and which countries will have currencies available to pay for goods. Nevertheless, the essentiality of the chemical industry to people everywhere assures the United States of a large chemical foreign trade in 1948, even though exports may not reach the exceptionally high figure of $661,000,000, for the first 9 months of 1947.

Record Synthetic Chemical Sales Due

The United States synthetic chemical industry is facing its greatest year in history with steadily rising demands foretelling of a record high in production and sales, industry executives believe.

The outlook for 1948, however, is tempered by four principal factors which can and may change rapidly the present market balance, they declare:

1. The demand for organic chemicals abroad under the formidable but vague Marshall Plan.
2. The threat of another round of wage increases.
3. The apparent additional rise in freight rates.
4. Rising price levels reflecting the increasingly high cost of new production.

• Prices quoted in this section were current on the first of this month,

About 400,000,000 pounds of acetaldehyde were produced during 1947, which is approximately 50,000,000 pounds more than the production during the preceding year. The major portion, about 80 percent of all acetaldehyde, is used for the manufacture of acetic acid. Of the remainder, a substantial amount of acetaldehyde went into the production of synthetic butyl alcohols, with smaller amounts being used in the manufacture of pentaerythritol. The latter market does not as yet exceed 4 percent of the total production of this aldehyde. The balance of the acetaldehyde produced goes in pharmaceuticals, dyes, and numerous miscellaneous uses. A continued steady increase in the production of acetaldehyde is predicted this year, with prices holding steady in most cases.

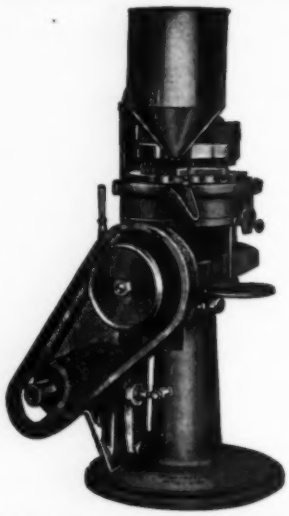
Isopropyl alcohol production in 1947 reached approximately 75,000,000 gallons (100 percent isopropyl). About 80 percent of this chemical went into the manufacture of acetone, about 10 percent to antifreeze and the balance to solvents, esters, diluents, brake-fluids and similar uses. Its use as an antifreeze will decrease due to the advent of more methanol.

Celanese Corporation of America brought in new production on isopropyl during the last quarter of 1947 and this new supply will tend to improve the market slightly. It is anticipated that isopropyl will continue to be critical during 1948 with price levels going up about 4c to 5c per gallon.

Production of all types of butyl alcohols was about 240,000,000 pounds in 1947, an increase of about 10,000,000 pounds over 1946. Of this total 145,000,000 or 60 percent was the normal isomer produced synthetically by Carbide & Carbon Corp., and by fermentation by United States Industrial Chemicals, Commercial Solvents and Publicjer Industries. The iso, secondary and tertiary isomers amounted to about 95,000,000 pounds or about the same level as 1946.

Butyl alcohols remain in short supply and great demand, particularly with respect to iso-butanols. There is only one producer of this latter isomer, E. I.

(*Continued on page 259*)



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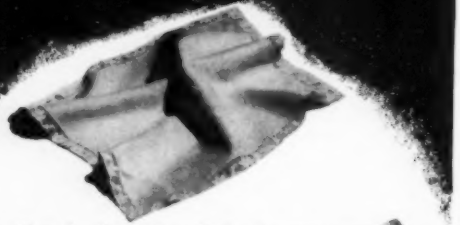

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Bigger Essential Oil Sales Volume Predicted for 1948. Devaluation of Franc May Increase French Exports.

Leading executives in the trade predicted for 1948 the biggest sales volume in essential oils history. New uses and new applications of essential oils are expected to play a part in advancing sales particularly in fields which are just realizing the importance of scent and taste appeals in their products.

Devaluation of the franc, announced the latter part of January, is expected to spur French exports to hard currency countries, particularly the United States, though the benefits sought may be delayed temporarily as traders await price trends on the free exchange market which will not be permitted.

While the move will cost France more for the goods which she buys abroad, traders stated the low point to which her exports have fallen and the intense desire to raise the volume were indicated in the Government's determination to devalue in spite of strong opposition to the move from the British and disapproval by the International Monetary Fund.

After two months of declining receipts, essential oil imports rose to 563,118 pounds in October, an increase of 66 percent from the preceding month and 57 percent from August. Among the oils reflecting import tonnage gains were: Anise, bois de rose, cananga, cassia, citronella, geranium, lemon, lime, orange, origanum, and petitgrain.

Essential oil imports during the first 10 months of 1947 totalled 4,827,199 pounds, 28 percent less than like arrivals in the January-October months of 1946.

Declared exports of petitgrain oil from Paraguay to the United States during the first 10 months of 1947 amounted to 43,132 kilograms, valued at $236,002 compared with 71,341 kilograms, valued at $450,175 in the like period of 1946.

Geranium oil exported from the island of Reunion during the first 7 months of 1947 amounted to 22,700 kilograms, valued at 38,190,000 francs. Of this amount the United States received 5,100 kilograms, valued at 9,163,000 francs.

Reunion's exports of oil of vetivert throughout the first 7 months of 1947 amounted to 6,300 kilograms, valued at 23,932,000 francs. The United States received 400 kilograms, valued at 1,572,000 francs.

Bergamot Oil Down

A considerable shipment of Italian bergamot oil was received in New York, closely following the news in the trade that in the past few weeks the quality of this product has picked up considerably and was in a good position to re-establish its old reputation for quality. The war had left its effects on the Italian oil industry as well as most other factors in the country's economy and for some time the products received here were of such poor quality that many houses refused to supply them. But, with the recent improvement, leaders in the trade were of the opinion that demand for the oil would probably go back to the old levels. The natural oil came down in price from $5.25 to $4.75 on the inside range, although the outside remained unchanged at $6.

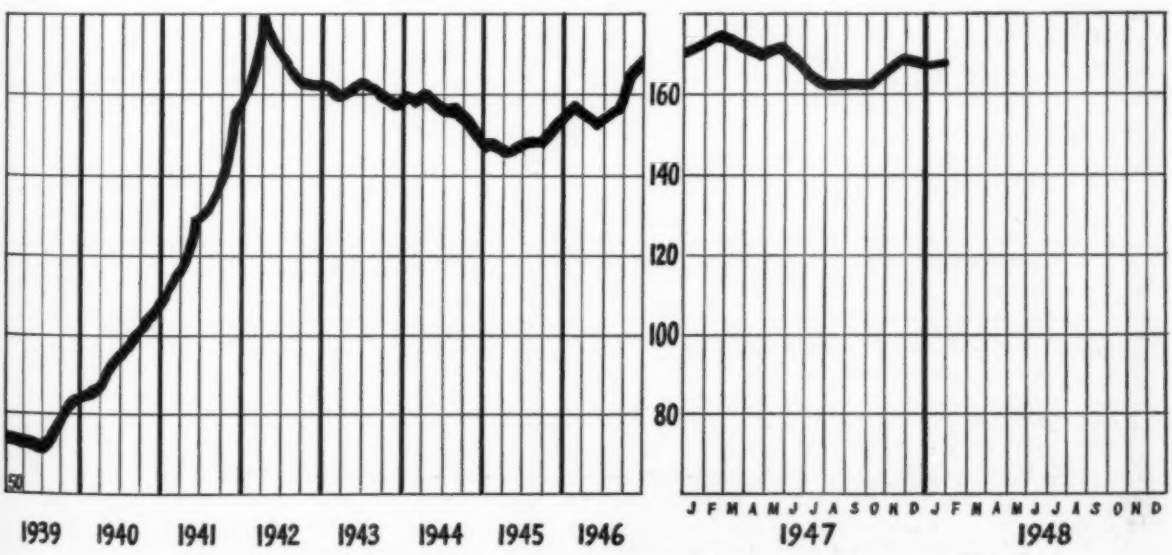
Coriander Scarce Higher

Oil of coriander took a big jump of $6 per pound on the New York market during the current trading period but the higher price actually made very little difference because there was practically none of the oil available, and any buyer who could find some was more anxious to obtain possession of it than he was to haggle over the price. Since Russia stopped sending supplies some months back, the market became so tight that one New York house put out an imitation oil that was reportedly meeting with considerable sucesss. Demand for the oil continued to be good, but unless buyers were willing to take an imitation, there was not much chance of their obtaining any of the natural oil. The new range was $36 to $37, a pound.

Oil of Bois de Rose Imports Into the U. S. From Brazil

Arrivals of oil of bois de rose in the United States from Brazil during the first 11 months of 1947 amounted to 400,756 pounds, valued at $1,247,147. In the entire year 1946, such arrivals amounted to 484,804 pounds, valued at $1,971,336.

50 Raw Materials—Weighted Price Index. 1926=100.



The price index of fifty commodities for January advanced fractionally from 168.1 to 168.3.

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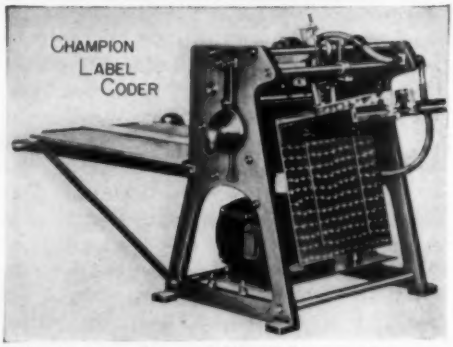

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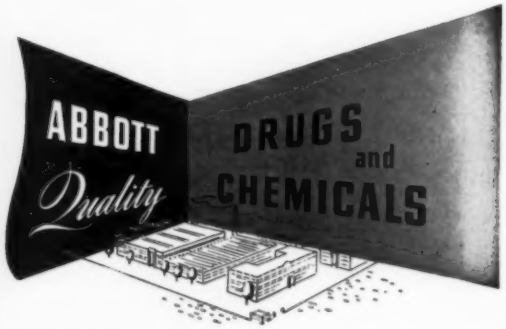

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Bergamot Oil 50c
Candelilla Wax 4c
Carnauba Wax No. 1 12c
Cod Liver Oil $3 bbl.
Golden Seal Root $1
Jaborandi Leaves 1c
Lemon Grass Oil 5c
Lime Oil, Dist. 5c
Linalool 60c
Menthol Nat. 20c
Orris Root, Flor. 1c
Papain Pure Powd. 50c
Prickly Ash Bark 12c
Rhubarb Root HD 2c
Savin Oil 75c
Vetivert Oil Java $2

Synthetic Chemical Sales

(Continued from page 255)

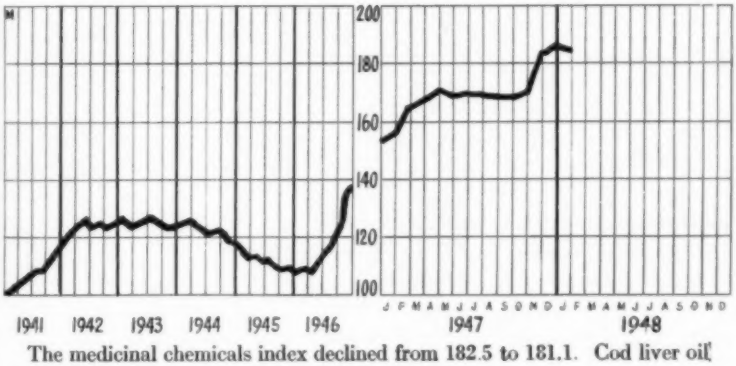
du Pont de Nemours & Co., and the larger portion of this production will be used by this firm alone. Since it is strictly a by-product, there is little hope of any increase from that quarter.

Consequently, users have, of necessity, turned toward any logical substitute for iso-butyl in the form of normal, secondary and tertiary. The last named alcohol has a very limited market, but appreciable increases of normal and secondary butanols can be expected from Carbide & Carbon Chemicals Corp., and from Shell Chemical Corp. for 1948.

Celanese has recently entered the field with a new proprietary solvent possessing a preponderance of iso-butanol. Methyl iso-butyl ketone may prove to be another logical substitute as a pure compound with a good relative boiling point and other comparable and advantageous characteristics.

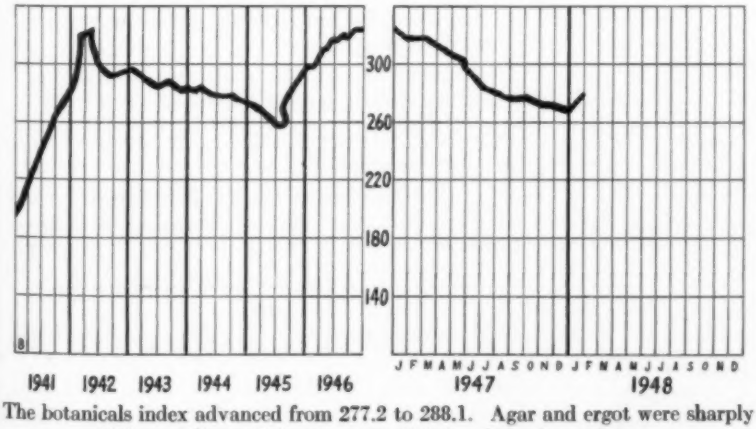
With practically all alcohol producers increasing their alcohol supply, a much better balance can be anticipated between supply and demand during the coming year. Although the price level is going up at the moment, the supply situation may temper this somewhat.

15 Medicinal Chemicals—Weighted Price Index. 1926=100.



The medicinal chemicals index declined from 182.5 to 181.1. Cod liver oil and menthol were lower.

15 Botanicals—Weighted Price Index. 1926=100.



The botanicals index advanced from 277.2 to 288.1. Agar and ergot were sharply higher. Balsam Tolu advanced slightly; rhubarb was lower.

Streptomycin Output Makes Sharp Gain

Marked by a new monthly high of 1,660,000 grams in December, production of streptomycin last year rose to 9,687,049 grams.

The Commerce Department said December production alone was greater than the 1,132,000 grams produced in the entire year 1946, and exceeded November output by 330,000 grams.

Almost all the increases over November went into exports. Domestic stocks of 942,210 grams at the year-end represented six weeks domestic needs, and the Commerce Department authorized export of 1,200,000 grams for January. This export quota exceeds the December quota by 300,000 grams.

In contrast to relatively constant domestic requirements, export demand for streptomycin has been far in excess of established quotas and shipments, and continues to increase, officials declared.

Menthol Down

Over three hundred cases of menthol arrived here since the start of the new year, and a third steamer now afloat from Japan is believed to have 300 additional cases aboard. Normally the receipt of 600 cases of menthol would have a decidedly bearish influence upon the local market. Because of a rather narrow demand here, however, quotations have declined somewhat to a current range of from $9.00 to $9.25 per pound.

Shipping prices from both Brazil and China are lower, although it is said that only moderate quantities are offered from primary centers. Prior to the war consumption of menthol amounted to approximately 200 tons a year.

U.S. Imports of Cinchona Bark, Menthol, and Ipecac

Arrivals of cinchona bark in the United States from the three leading sources, during the first 9 months of 1947, were as follows: Guatemala, 846,185 pounds, valued at $100,365; British Malaya, 465,604 pounds, valued at $156,987; and the Netherlands Indies, 122,309 pounds, valued at $34,556. The figures for 1946 were: Guatemala, 749,674 pounds, valued at $85,832; and British Malaya, 168,000 pounds, valued at $62,702. There were no shipments from the Netherlands Indies in that year.

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Imports of natural menthol into the United States from the most important sources, in the first 9 months of 1947, were as follows: Brazil, 230,206 pounds, valued at $1,581,022; China, 94,080 pounds, valued at $655,318; and Japan 28,680 pounds, valued at $176,095. During 1946 the quantities and values were: Brazil, 506,392 pounds, valued at $2,815,334; China, 42,060 pounds, valued at $276,327; and Japan, 26,460 pounds, valued at $148,176.

Imports of ipecac into the United States during the first 9 months of 1947 amounted to 23,442 pounds, valued at $93,682. The leading sources were: Colombia, 11,830 pounds, valued at $46,365; Panama, 5,453 pounds, valued at $21,964; and Nicaragua, 5,125 pounds, valued at $20,441.

All of the foregoing figures are United States official statistics.

Price Shift Seen for Vanilla Beans

The differential between the price of Mexican vanilla beans and the Bourbon variety is expected to be narrowed during the remaining months of this year, current primary market developments indicate.

Normally Mexican vanilla beans command a premium of from $1 to $2 per pound over the French beans.

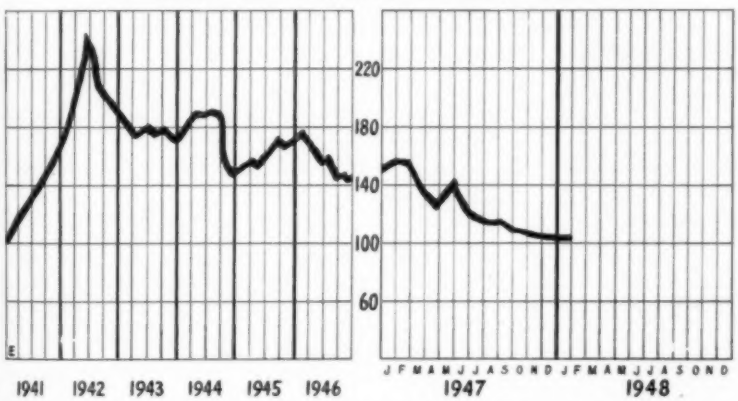
Some low cost Bourbon beans remain unsold in the local market but as soon as these goods are disposed of spot prices will be increased by at least 50c to a level of $8.25 to $9 per pound, it was learned here.

The French Colonial Government, it is recalled, announced a generally higher scale of export prices on vanilla out of Madagascar back in October and late advices from Madagascar and France state that price regulations will be enforced since it will be to the interest of every curer of vanilla beans in Madagascar that no violations be made, reports state.

Meanwhile the prices quoted on the coming crop of Mexican beans are below those recently in force. New crop cut vanilla beans, which should begin to arrive here by the end of March, are offered for shipment from Mexico at $6.25 to $6.75 per pound, while whole beans, which should be ready for shipment by the end of May, are quoted at $7.25 to $8 per pound. The coming crop in Mexico, which is estimated at 500,000 pounds, is now being purchased at reasonable prices by curers.

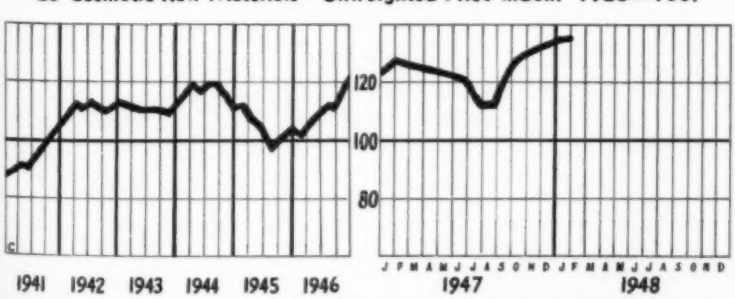
Current demand for vanilla beans is reported as quiet but leading importers are looking forward to a gradual broadening in activity as the new year gets under way.

15 Essential Oils—Weighted Price Index. 1926=100.



The essential oils index declined fractionally from 113.5. to 113.2. Bergamot was lower; cassia higher.

25 Cosmetic Raw Materials—Unweighted Price Index. 1926=100.



The cosmetic raw materials index advanced fractionally from 133.2 to. 133.5. Balsam Tolu and Candelilla wax were higher. Menthol was lower.

Mercury Development

A development of interest in mercury is a second arrival of metal from Yugoslavia. There were two lots on the steamer Honduras Victoroy, arriving here with a total of 600 flasks aboard. The new lots are not likely to have much influence upon spot prices. Should the reports current about the trade to the effect that negotiations are under way for the shipment of an additional 3,500 flasks from Yugoslavia prove true, a highly competitive situation is likely to develop in the domestic market. Current prices, ranging from $77 to $81 per flask, compare with $190 to $200 per flask during the war period.

U. S. Imports of Drugs From India

During the first 9 months of 1947, imports of nux vomica into the United States from India totalled 1,152,034 pounds, valued at $54,491; those of psyllium seed amounted to 2,147,030 pounds, valued at $1,221,422; and of senna 487,226 pounds, valued at $68,742. Imports in 1946 were as follows: Nux vomica, 2,859,232 pounds, valued at $121,223; psyllium seed, 2,144,492 pounds, valued at $669,925; and senna, 2,365,771 pounds, valued at $272,705.

Camphor Production Japan

Production of crude camphor in Japan in the first 7 months of 1947 increased to 526 metric tons. It was more than double the output of 236 tons in the corresponding period of 1946 and sufficient to meet 60 percent of current demand.

Before the war, most of Japan's camphor was imported from Formosa. The principal groves are now in southern Kyushu.

Botanical Imports

Imports of botanical drugs in the amount of 1,801,805 pounds during October represented an increase of 64 percent from receipts of the preceding month. Responsible for the rise in import volume were such crudes as belladonna, buchu leaves, camomile flowers, cinchona bark, ergot, gentian, ginseng, henbane, ipecac, psyllium seed, and sarsaparilla root.

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Selecting the Right Salesmen

(*Continued from page 179*)

From one or more of these sources, applicants will undoubtedly apply for the position. Application blanks should be given them. These can then be screened, and interviews arranged for those who qualify.

It is quite apparent that many field managers to not understand, nor have they been shown, how to use application blanks to full advantage. If he is so trained, he can cut down his interview time appreciably. He will also be able to improve his batting average in selection.

The application blank should tell the field manager whether the man is too old for consideration. It will also reveal his domestic status and the number of dependents. If, for example, the job will only pay $250 a month and a man has five dependents, it is not likely that he should be considered. It is also possible to get a clue regarding a man's educational qualifications. It would be obvious that in the pharmaceutical field, a man with only a grammar school education would hardly be a likely choice for a representative. The amount of insurance a man carries is also revealing at times. Too much can be a danger signal as well as too little. Of particular importance is the applicant's record of employment. Beware of the fellow who has had more than five positions . . . be especially careful if any of these were for less than a two-year period. Paramount importance can be attached to the significance of whether a man has had an ascending or descending career . . . few men who have become district managers, for example, make good detail men. It is also true that a man who has been accustomed to a high standard of living is probably not happy when he has to cut it down. Such an individual would hardly be a good risk.

It is readily apparent that much time could be saved if application blanks were screened properly. It would be well worthwhile for every sales manager to make certain that his field supervisory personnel is made cognizant of the importance of the application blank as a valuable source of information.

The Interview

After the men have been selected as candidates for the sales position, you are ready for the interview. It has been our experience that it is most important that the applicant be put at ease. Possibly a certain part of the interview should be devoted to a discussion of everyday topics of interest. You may find that the applicant is a follower of sports, interested in present day business conditions, or some other subject of general interest. It is the job of the interviewer to attempt to loosen the man up so that he will drop his reserve or at least be less tense. It is important that in the first interview the applicant should do the talking. He is the one who is going to have to do the selling, and here is an opportunity to see what he can do with the product he knows best. It is important to guide the

interview, but the more loose rein you give the man, the more you can learn about him.

We have found that it is well to start a man off by having him describe his educational and business training since leaving high school. While be is talking, the field manager should make notes of pertinent facts as the story unfolds. This data can then be used later on as another check against the data on the application blank.

One question we have found useful to ask is what the applicant expects to earn now, and say in five years. It is frequently quite revealing and does give the interviewer an opportunity to gauge the job possibilities against the applicant's goal.

In our experience, it is the tendency of most field supervisory personnel to oversell the sales job in the first interview. This usually makes for disappointments later on. It is much better to undersell a sales position and see if the applicant will fight back. Such a procedure has been very successful with us. A man who will not show any fighting qualities for the job would hardly be worthwhile . . . he is going to have to fight for business continually. Getting a job should be pretty important to him, so this line of questioning gives us an opportunity to see what kind of man he is.

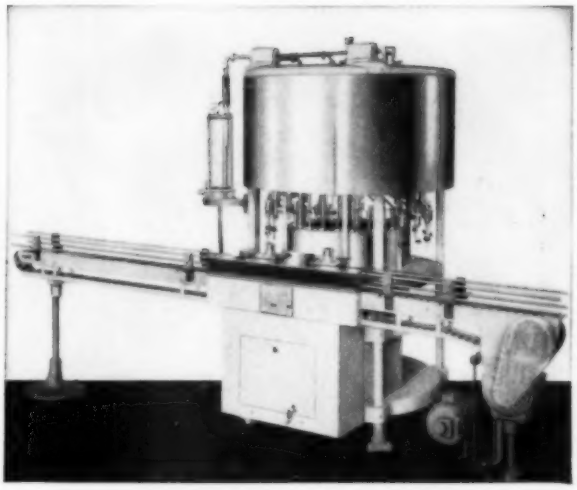
After the preliminary interview, two or three outstanding applicants are usually better than the others. We then encourage our field managers to check personally or by telephone, one or two former employers of each of the applicants, then to be re-interviewed. The interview notes should also be reviewed and checked against the application blank, as well as information obtained from former employers.

In the second interview, guidance should be along different lines than in the preliminary one. It has been our experience to encourage the supervisory personnel to lead the applicant into asking questions about the job.

We try and find out if the applicant has investigated the company or the job. It is of prime importance that the second interview contain questions along the lines of who, when, where, and what. A good interviewer never asks questions than can be answered by "yes" or "no." After the preliminary questions have been asked, it is well to pose some of the problems that occur on the job the applicant is applying for. Possibly he cannot give prompt answers to all of the questions, but it will be possible to learn quite a bit about the manner in which he goes about seeking a solution. The interviewer should find out more about the man's attitudes and goal in life. If the man's wife is working, that is a danger signal that needs checking. Too many men are quite happy to let the wife assume the responsibility of the home . . . by pooling incomes, the incentive to get ahead is diminished. The man then takes an "I don't care" attitude, which, of course, is a hazard in effective, low cost selling.

If, after screening, the successful applicants dwindle down to one, arrangements can then be made to meet

(*Continued on page 271*)



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Medicated Dusting Powders

(Continued from page 185)

Purified talc	**885 Gm.**
Boric acid, powdered	**40 "**
Zinc stearate	**15 "**
Magnesium carbonate	**60 "**
Perfume	**as desired**

Also indicative of a modern, well-balanced borated dusting powder is the preparation recommended by Goodman:[2]

Boric acid	**4 Gm.**
Zinc carbonate	**10 "**
Zinc stearate	**16 "**
Kaolin	**10 "**
Purified infusorial earth	**10 "**
Talc, to make	**100 "**

Of course, there are numerous formulas for making mildly medicated powders for use in various conditions. For instance, in treating infantile eczema, Sulzberger[14] has suggested the use of a mild dusting powder containing 1 to 3 per cent of powdered boric acid or tannic acid in a base consisting of equal parts of zinc oxide, zinc stearate and purified talc. In the management of diaper rash, Lowenburg[15] advises the free use of a dusting powder composed of equal parts of calamine, zinc oxide, Fuller's earth and bismuth subnitrate. This powder soothes the skin in addition to being highly absorbent. For the local treatment of pruritus ani, the following blend, soothing powder may be dusted on the itching parts every six hours:[16]

Boric acid	**6 parts**
Talc	**6 "**
Zinc stearate, to make	**60 "**

Another modification of such a simple borated dusting powder has been suggested[17] in the general therapy of pruritus. This consists of:

Boric acid	**12 Gm.**
Talcum	**54 "**
Zinc stearate	**54 "**

A well-recommended[7] basic powder, adaptable to a variety of dermatological conditions, is made from:

Zinc oxide	**50.0 Gm.**
Talc	**50.0 "**
Bentonite	**10.0 "**

This mixture may be used, as such, as a dusting powder. It may be made antipruritic, for example, by adding 5.0 Gm. of powdered camphor and 0.5 Gm. of menthol to each 100 Gm. of the basic powder.

Menthol and camphor, used individually or in combination, are frequently included in dusting powders to allay itching and to impart a welcome, cooling effect. Thus, a simple mentholated dusting powder may be prepared by mixing:[13]

Menthol	**6 Gm.**

Boric acid	400 "
Talc	594 "

A somewhat more elaborate dusting powder containing menthol may be made from:

Menthol	5 Gm.
Thymol	5 "
Boric acid	200 "
Talc	790 "
Oil of rose geranium	2 cc

Camphor is sometimes incorporated in powders used to relieve prickly heat. Tobias,[18] for example, suggests the following powder for daytime application in cases of miliaria rubra:

Camphor	0.5
Boric acid	2.0
Salicylic acid	0.5
Talcum, to make	100.0

In discussing the treatment of miliaria or "heat rash" of infants, Burks[10] notes that removal of sweat may be secured through powders which induce evaporation by increasing surface area. A suitable powder consists of a mixture of equal parts of zinc oxide, zinc stearate and talcum. This may be used with or without the addition of 4 to 6 per cent of camphor.

Dusting powders for treating prickly heat are also suggested by Perlman.[20] One such dusting powder is made by mixing equal parts of boric acid, magnesium, carbonate and starch. Another serviceable powder consists of a mixture of equal parts of prepared calamine, bentonite, zinc oxide and starch. In the same class is the following prickly heat dusting powder given a medical publication:[21]

Salicylic acid	0.6
Boric acid	4.0
Zinc oxide	12.0
Starch, to make	30.0

Astringents are frequently included in dusting powders to diminish secretions. Astringent dusting powders are especially useful in controlling excessive perspiration or hyperidrosis. For purely astringent action, as in cases of hyperidrosis, Fantus[5] believes that 15 per cent of alum is perhaps as good as any other agent for incorporation in a dusting powder such as talcum. The addition of about 3 per cent of salicylic acid will render the powder still more efficient in bromidrosis or cases of adorous sweating. Andrews[22] states that a dusting powder containing 3 per cent aluminum chloride, 3 per cent salicylic acid, and 10 per cent powdered alum is effective in treating hyperidrosis. Of related interest is the following hyperidrosis powder given in a modern hospital formulary[23] for local application in cases of excessive sweating:

Aluminum and potassium sulfate	5 Gm.
Sodium hyposulfite	20 "
Boric acid	25 "
Bentonite	25 "
Magnesium carbonate, to make	100 "

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In England, a special dusting powder to combat excessive sweating of the hands or feet has been recommended in several sources.[24,25] This powder contains 2 per cent salicylic acid and 5 per cent sodium hexametaphosphate in a base consisting of equal parts of zinc oxide, talc and boric acid. Hopkins,[6] another English authority, cites the advantages of using formaldehyde-releasing compounds in dusting powders to inhibit perspiration. Hexamine and paraformaldehyde are suitable; as in the following example:

Paraformaldehyde	**6 per cent**
Boric acid	**10 " "**
Kaolin	**25 " "**
Kieselguhr, to make	**100 " "**

If desired, an astringent dusting powder can be prepared wholly from medicating agents, as in the following example:[13]

Tannic acid	**100 Gm.**
Alum	**100 "**
Boric acid	**800 "**

Prevention of excessive sweating is, of course, a major consideration in the prevention and treatment of superficial fungus infections, such as "athlete's foot."[26] Indeed, it has been said[7] that powders provide one of the best measures for sweaty feet and for the prevention of recurrences of infections. In addition to absorbents and astringents, foot powders often contain fungicidal agents. In recommending the use of foot powders, Lehmann[27] notes that they are valuable because they aid in keeping the feet dry. If they contain a fungicidal or fungistatic agent, a better opportunity is presented for more continuous application, as perspiration dissolves the medication.

Formulas for foot powders are legion and it is not possible to present more than a few typical compositions. One of the best known and more widely used is the following Army issue foot powder:[7]

Salicylic acid	**2.0 Gm.**
Boric acid	**6.0 "**
Zinc stearate	**3.0 "**
Exsiccated alum	**1.0 "**
Starch	**10.0 "**
Talc	**78.0 "**

An alternate formula calls for:

Zinc peroxide	**10.0 Gm.**
Tannic acid	**5.0 "**
Boric acid	**20.0 "**
Bentonite	**10.0 "**
Talc	**55.0 "**

Aside from their value in cases of hyperidrosis and in the prevention and treatment of fungus infections, these powders are also useful in prickly heat and in pyodermas associated with excessive sweating.

According to Saffron,[28] the Navy has used the well-known powder described by Phren[29] in 1938. Phren's powder consists of:

Salicylic acid	**5.0 Gm.**
Menthol	**2.0 "**
Camphor	**8.0 "**
Boric acid	**50.0 "**
Starch	**35.0 "**

More recently, Downing and Conant[30] suggested the following powder as a prophylatic aid against athletes foot:

Salicylic acid	**2.0 per cent**
Zinc stearate	**3.0 " "**
Boric acid	**6.0 " "**
Starch	**10.0 " "**
Talc	**79.0 " "**

To prevent hyperidrosis and prevent fungus infections, chiropodists[31] employ a modified Whitfield's foot powder made with:

Salicylic acid	**1.0 Gm.**
Benzoic acid	**0.7 "**
Thymol	**0.3 "**
Menthol	**0.3 "**
Boric acid	**15.0 "**
Bentonite, to make	**60.0 "**

Where an antiseptic foot powder is desired, the following preparation given by Andrews[22] should serve:

Menthol	**0.03**
Thymol iodide	**0.40**
Zinc stearate	**1.00**
Magnesium carbonate	**0.60**
Boric acid	**4.00**
Talc, to make	**30.00**

Another satisfactory formula for a good powder for use in the treatment of trichophytosis is:[32]

Sodium thiosulfate	**6 Gm.**
Boric acid	**24 "**

During recent years, considerable interest has centered about newer fungicides for use in the prophylaxis and therapy of fungus infections.[33] Extensive tests and comparisons have shown that undecylenic acid-zinc undecylate powders are not only highly efficient,[34,35,36] but are also non-irritating, have very low sensitizing potentials and can therefore be used on all types of fungus infections of the skin.[37,38] The standard powder using these newer agents is as follows:

Zinc undecylenate	**20 per cent**
Undecylenic acid	**2 " "**
Talc, to make	**100 " "**

A modification of this powder, as suggested by Andrews,[22] contains:

Undecylenic acid	**0.6**
Zinc undecylenate	**6.0**
Zinc stearate	**2.0**
Talc, to make	**30.0**

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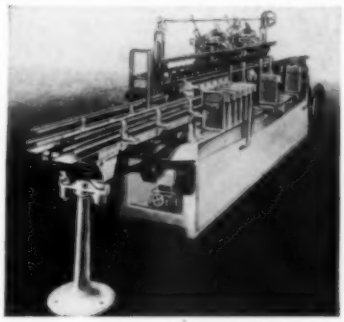

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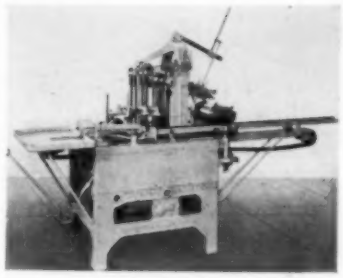

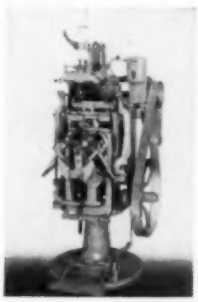

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Antiseptic dusting powders may consist of antibacterial agents dispersed in suitable vehicles or bases, or may consist solely of the effective materials in powder form. An example of the former type, cited by Fantus[5] as an antiseptic and astringent dusting powder, is obtained by mixing silver nitrate with kaolin in the proportion of 1:5,000. Thymol iodide is a frequent component of antiseptic dusting powders, such as the following:[13]

Thymol iodide	250 Gm.
Boric acid	250 "
Talc	500 "

Another dusting powder containing this agent may be employed as a mild antiseptic, astringent and keratolytic agent on abraded surfaces. This consists of:[23]

Thymol iodide	1 Gm.
Salicylic acid	2 "
Boric acid	50 "
Talc, to make	100 "

Thymol iodide alone can be used as an antiseptic dusting powder. By using a combination such as is given below,[5] analgesic properties can be imparted to the powder:

Ethylaminobenzoate	5 Gm.
Thymol iodide	45 "

Although the odor of iodoform is sometimes objectionable, it has the advantage of providing not only an antiseptic dusting powder, but also one with inherent analgesic potency.[5] If desired, iodoform may be combined with boric acid, as in the formula[13] below:

Iodoform	250 Gm.
Boric acid	750 "

Powdered sulfa drugs, of course, provide outstanding examples of undiluted medicaments for dusting on skin infections, wounds and other surfaces. It will be recalled that during the war, envelopes containing sterile sulfanilamide powders were important items in first-aid kits. The topical application of sulfanilamide powders to pyodermas, wounds and burns is now a well established procedure and the efficacy of such products is well attested in numerous reports. Used in gymcological surgery as a prophylactic measure in potentially infected patients,[39] sulfathiazole powder has also been used in the treatment and propylaxis of gonorrhea.[40] In the latter application, the microcrystalline powders are applied by a blower so as to coat the vagina and urvix with the antibacterial drug.

Sometimes mixtures of sulfa drugs are used on wounds. One such preparation comprises a sterile mixture containing about 67 per cent of crystalline sulfanilamide and 33 per cent of sulfathiazole. The two drugs dissolve independently and the effect of each is obtained. Thus a wound which does not respond well to one sulfa drug may be benefited by the other. In addition a more rounded antibacterial action is obtained.[41]

The sulfonamides may be mixed with other drugs to provide better antibacterial action or to improve the physical properties of the powders. For example, English workers[42] found that sulfathiazole powder containing 1 per cent of proflavine sulfate was highly effective against a wide variety of organisms in infected wounds. A modification[43] of this widely used powder employs 1 per cent of 2:7 diamino acridine hydrochloride in sulfathiazole instead of proflavine sulfate. This newer acridine antiseptic is quite as active as proflavine but is less toxic. In making such powders the acridine compound is mixed with the sulfathiazole powder before sterilization.

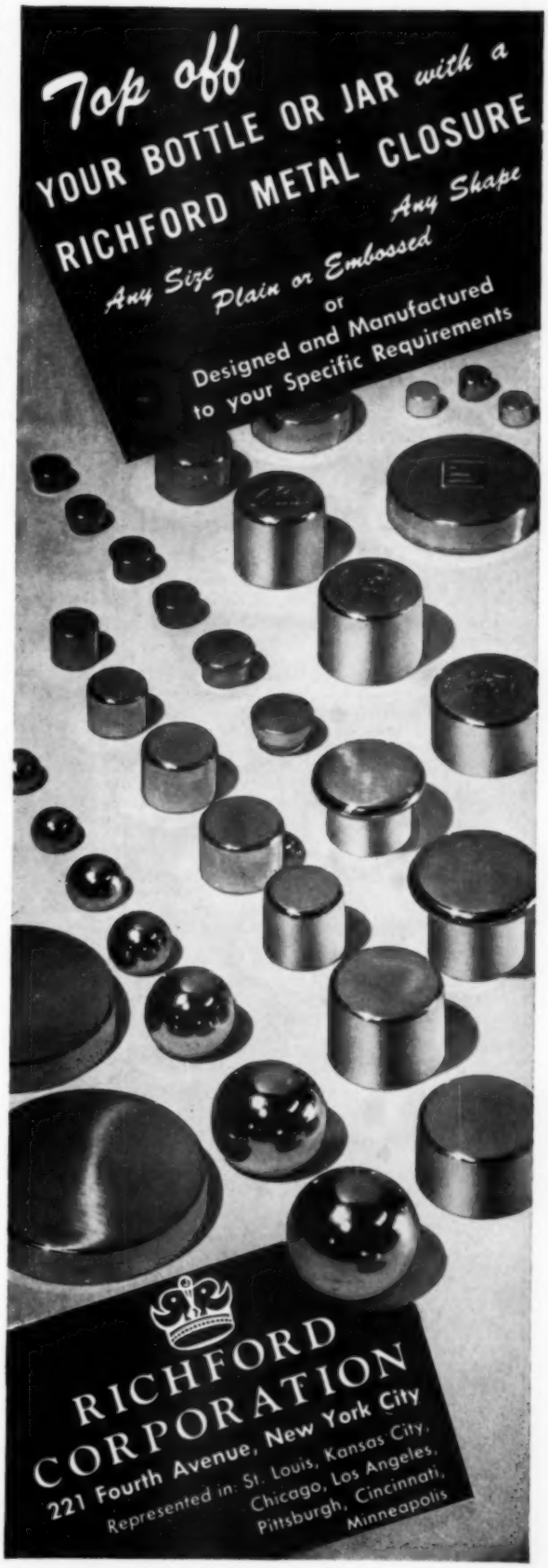
The effective action of zinc peroxide against anaerobic organisms may be combined with the bacteriostatic action of sulfa drugs to yield a more effective powder. For example, 10 per cent of zinc peroxide may be added to sulfathiazole powder, or the following combination may be used:[6]

Sulfathiazole	**5 per cent**
Zinc peroxide	**20 " "**
Boric acid	**75 " "**

When making dusting powders for treating certain dermatological conditions, the sulfa drug may be mixed with a suitable base to provide both an antibacterial and mechanical action. Such a combination may be used, for example, to treat intertrigo, a condition caused by moisture, warmth and friction in parts difficult to keep clean and where the skin is of a delicate texture. This condition can usually be cured in a few days by preventing chafing and by applying a dusting powder containing 10 per cent sulfathiazole in a mixture of zinc stearate and talc.[22]

It was probably inevitable that penicillin would find a place in medicated dusting powders for use on surface wounds and for insufflation into body cavities. In some cases, simple mixtures of penicillin and a sulfa drug, usually sulfathiazole, were used. The penicillin strength varied from 500 to 5,000 units per gram; the lower concentrations being used on burns and the higher for wounds.[43] Others[44,45,46] employed a simple triturate of sulfanilamide or sulfathiazole with 5 per cent light magnesium oxide and a sufficient quantity of penicillin to yield a potency of 2,000 to 5,000 units per gram. Such powders have been used with success in preventing and controlling infection.[47]

Another penicillin-containing powder was successfully used by Dean[48] in the treatment of otitis externa, better known as fungus of the ears. To prepare the powder, equal parts of sulfathiazole and boric acid powders are mixed together and enough penicillin powder is added to give the mixture a light yellow color. The powder, called "psb" powder, is placed in a powder blower and kept in the refrigerator ready for immediate use. After its value in otitis externa had been established, the "psb" powder was used with good results in cases of acute tonsillitis, septic sore throat and Vincent's angina. Dean also mentions that a penicillin and sulfathiazole powder mixture has proved



very efficacious in the treatment of lacerated wounds, contaminated surgical wounds and in many cases of acute conjunctivitis.

In addition to the above penicillin powders, a mixture of dried human serum and sufficient penicillin to provide 3,000 to 4,000 units per gram has been used therapeutically as a dusting powder.[49] A similar mixture of penicillin sodium and dehydrated plasma has also been used as a powder spray for the local treatment of wounds. The powder consists of 10,000 or 20,000 units of penicillin mixed with 0.2 Gm. of dehydrated plasma. It is reported[50] that the powder goes into solution immediately upon contact with the wound surface. Investigations indicate that the penicillin is not inactivated by the plasma. Of related interest is a penicillin snuff consisting of a mixture of 100,000 units of penicillin and 11 Gm. of blood plasma or finely powdered dextrose.[46]

Recently, Golden and Neumeier[51] undertook the task of developing standard type dusting powders containing penicillin. Their careful work confirmed observations concerning the instability of the sodium salt and the relative stability of penicillin. Of the various powder bases studied, zinc stearate was found to be the most effective in maintaining the activity of calcium penicillin. Only 20 per cent deterioration of the antibiotic in zinc stearate was observed after one year. In view of the fact that the use of zinc stearate as a dusting powder is well established and that calcium penicillin (500 units per gram) can be safely combined with it, these workers feel that a zinc stearate-calcium penicillin dusting powder seems to have definite therapeutic value in the treatment of superficial infections wherever an antiseptic dusting powder is indicated.

Before concluding, mention should be made of the use of pain-relieving drugs in dusting powders. One such has already been mentioned in conjunction with antiseptic dusting powders. In addition, as noted by Fantas,[5] for analgesic action on painful raw surfaces, 5, 10 or 20 per cent of ethyl aminobenzoate (anesthesin) in boric acid is perhaps the most eligible where a during powder is indicated.

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Greatest space-filling device of modern journalism is the annual list of "The Ten Best" everythings of the fading year. The choices, of course, are as conclusive as a question mark.

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The New York Times' erudite Bosley Crowther, for example, includes "The Bishop's Wife" on his list of "The Ten." Earlier, the New Yorker's sophisticated John McCarten described the same movie as over-priced for the Five and Ten.

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To a confused reader, unfortunately, it adds only this wonder: Are the different opinions the result of free thinking or the intellectual challenge of free admissions?

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The Broadway theatre, of course, supplies its own choices for salute. We shudder to consider the reasons under Freudian analysis. Judith Anderson, f'rinstance, rates "The Ten Best" for a dainty job of murdering her children in "Medea." Paul Kelly is applauded for histrionic restraint in blowing his top in "Command Decision." And Bert Lahr gets into the Select Circle via "Burlesque," in which he proves highly interesting even though fully clothed.

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Selecting the Right Salesmen

(*Continued from page 263*)

his wife. On a sales job particularly, the matter of the wife understanding her husband's job is most essential. If the man has to travel, it is even more important that the wife be made cognizant of this fact. Too many wives do not trust their husbands away from home or feel insecure in their absence. The attitude of the wife toward the husband's job is one of the sales manager's most important aids or problems.

Some companies then give the one or two outstanding applicants a sales aptitude test. While we believe this procedure to be useful, experience has not indicated its necessity if we follow the interview system just outlined. Furthermore, it is a tendency of the field supervisory personnel to let the sales aptitude test do their selecting for them. Even when properly briefed regarding the use of aptitude tests as a selection tool, too many field managers are inclined to throw the responsibility on the shoulders of the test, thereby creating a dangerous and costly situation. We feel that aptitude tests are useful within limitations.

The final step before making our selection choice is a personal and business reference report by a reputable credit company. Our experience with one such service has been most satisfying if we keep in close touch with the credit company executives and watch the quality of the credit reports with a weather eye. If the quality of the service slackens, it is essential that the proper credit officials know about it . . . they are usually quite successful in correcting the weaknesses.

In the November issue of FORTUNE, great stress was laid on the importance of the salesman in stabilizing the U. S. economy at its present high production rate. The following is what FORTUNE had to say about the man who is the keystone of our economy:

"It is not only because distribution in a physical sense looms so important in American life that it is worth examining today. It is because distribution in the sense of *selling* things, as against *making* things, is part and parcel of the kind of free political economy that the U. S. champions. In the rigidly planned economy, as deified by Russia, as practiced by most

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European countries, there is precious little use for that familiar figure, the salesman. A few men at the top, government officials, decide what is to be produced and the people have to abide by their decision. Very different is the ideal of American capitalism and enterprise. Peope bid in the market as between competing goods and services. Their bids, registering through the price system, in turn indicate to manufacturers what goods should be produced in larger quantity, what goods in smaller quantity. Even decisions as to how much of the productive energy of the community is to go for the making of consumer goods and how much is to go for the making of capital goods is made in the last analysis by consumer demand. In this kind of society the salesman has a real part to play!"

As sales managers, it is our responsibility to set up a selection program which will help us to maintain our present level of production. If our methods are sloppy or unplanned, we will be shirking a serious obligation to a free economy. We have no choice but to re-evaluate our selection methods. Remember, manpower is our most precious commodity . . . we must learn to use it wisely.

Medical Research

(Continued from page 175)

terest in research, many more advances will be made and they will be as startling as those that have already been observed. The use of electron microscopes, radioactive substances, and chemotherapy has opened the door to new horizons, and the vista is truly thrilling to contemplate. Some indication of the amount of research that is now going on can be gained by counting the number of scientific papers published in any year. Into this work have gone much thought, time, and effort. And those that laid the best plans remembered that no matter what they did there would be others who could be even more successful in their searching. Such humility is especially appropriate when seeking measures to improve the health of the people. Few researchers ever exhaust their full resources, but those that come closest are flagged on by enthusiasm and encouragement with a ceaseless and burning desire for always seeking the truth. At times such enthusiasm is sorely needed as the average individual today must know several times as much as he would have a few decades ago if he is to be properly informed and prepared for his work. Furthermore, before his research work is completed he will experience many setbacks, even failures. His constant examining of new possibilities and re-examining of established facts reminds one of Mark Twain's sly observation: "Most people are bothered by those passages of Scripture they do not understand, but I have always noticed that the passages that bother me are those I do understand."

Such effort has paid handsomely, however; it has made the United States the foremost medical center in the world and has permitted it to become the world's largest producer, exporter, and importer of chemicals.

One outstanding business executive has said "Great developments have taken place in the past, but nothing has been finished. Today we face greater opportunities in all fields of endeavor for people who have faith in their country and in themselves." This is particularly applicable to medical research. Many things, seemingly miraculous, have been achieved. But these represent only the beginning. And as each new chapter is revealed it can be regarded as reflecting the advance of humanity. For medical research is truly a mirror of progress.

Mr. Retailer Meet the F.D.A.

(Continued from page 172)

packages, properly labelled at the factory or proper labels bearing no name of brand or manufacturer supplied with each shipment.

No worthwhile law has ever been static or remained within the rigid frame of its original intent, nor has the full effect of a broad but dynamic court decision ever been felt except as experience and human problems clarify its scope. This decision of the Supreme Court accepts the broad concept of protecting public health in preference to the narrow concept that certain normal business methods may encounter difficulties.

As the F.D.A. assumes administration, with the vast new power granted by this decision and by the Miller bill undoubedly soon to pass, they have before them the clear intent of the court to give them the means for greater protection of public health and not the means, implicity implied, to idle excursion when public health or deception is not involved.

We don't think there is any need for excursions and alarms. The F.D.A. will be plenty busy in things that are vital for public health.

Theories on Odors

(Continued from page 182)

for the change in character of some odorants upon dilution and for the different concentration thresholds for the detection and actual recognition of odorants. If the threshold concentration of an odorant were lower for one of the two olfactory processes than for the other, then at low concentrations it would be perceptible through one process only. The concentration at which the second process begins should be evident through a change in character of the odor. Similarly the functioning of a single process would be sufficient to detect the presence of an odor but both processes might be required to distinguish it.

If Miles and Beck have postulated correctly, it is necessary, as a consequence of the laws of radiation, that cool odorant vapor should produce a greater stimulus than warm vapor. It has been previously pointed out that this appears to be true. Furthermore however, as a consequence of the same laws, no stimulus should be produced when the odorant vapor reaches the olfactory cleft at body temperature, for then the vapor would be in dynamic thermal equilibrium with

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the epithelium so that energy could not be lost in the manner described by Miles and Beck. This is contrary to human experience for olfaction is still possible in an atmosphere at body temperature or higher though it is often difficult to distinguish one odorant from another. A plausable explanation for this is offered by the dual process theory, for although the process depending upon radiation would cease to function when the odorant reached body temperature, the chemical process remaining would still allow for the detection of odorants but their recognition would be difficult.

A graphic relation showing the threshold concentration of an odorant plotted against its temperature could be obtained using an air dilution type olfactometer fitted with a small diameter, thin walled, glass tube immersed in a temperature controlled bath so that odorant vapor of known temperature and concentration could be introduced into the nose. Such a graph would show clearly whether or not the dual process theory is correct, for the threshold concentration would increase as the temperature of the body was approached becoming asymptotic to that ordinate if the radiation theory alone accounts for olfaction. If however, a chemical process is also present and it is not materially affected by small temperature changes then the threshold concentration should be finite at body temperature and its value would be that for the chemical process alone.

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Cold and Cleansing Creams

(*Continued from page 177*)

percent may be added to formulations in which the percentage of water is reduced to 15 percent while in creams containing 30 percent of water-or more, 2 percent is a safe limit. Too high a percentage of lanolin results in a peculiar progressive increase in the intensity of a yellow coloration at the surface of the cream caused by a separation and rising to the surface of a fraction of the emulsion whose principal component is lanolin. A fuller discussion of the use of lanolin will be included in the sections that will follow.

The oil phase of the beeswax emulsion has had a long and interesting history. In the past, oil of sweet almonds has been used as the principal component of cold cream, and is recommended for this purpose in the U. S. Pharmacopoeia. Mineral oils of varying viscosities, however, have replaced it almost completely, for several reasons. The cost of mineral oil to begin with is lower and in addition it is not subject to the oxidation reaction which is a forerunner of rancidity as is almond oil. The use of mineral oil, therefore, insures a longer shelf life of the finished cream, an important consideration, when a year is thought of as being minimum. The oil is the largest, single constituent of the cream. Its function is to lubricate and act as the cleansing medium. Different secondary functions may be introduced by using oils of different viscosities. The higher viscosity oils will enable the compounder to produce a cream having a thicker film, and therefore, everything else being equal, appears to be more oily than would a lower viscosity homologue. The cold creams, by the distinction made above, would therefore utilize the high viscosity oils as against the lower viscosity oils used in the cleansing creams.

There are a large number of substances used as stiffening agents in the beeswax-borax creams, but they may be represented by ozokerite, paraffin wax and spermaceti in addition to beeswax itself. Ozokerite is an amorphous hydrocarbon of high melting point (about 70° C.), but fairly soft and flexible. Its addition to creams causes a marked stiffening, but at the same time retards in the finished product any tendency towards thixotropy and therefore a sudden fracture. The higher the amount introduced, the more difficult does the application of the film become. This property of ozokerite is utilized as a means towards controlling the amount of physical massaging which may be desired as a functional property of the cream.

Paraffin and spermaceti represent the opposite extremes. They are highly crystalline waxes of relatively low melting points, which introduce with their use a thixotropic effect, which enables the compounder to so formulate his product so that the cream may liquify with slight pressure. Paraffin may be obtained in various grades with melting points at 125°F., 135°F. and 145°F. However they have the thixotropic property in common; spermaceti with a melting point of 113°F. does not possess it to the same extent, but it is capable of the formulation of whiter creams by its use and also enhances the lustrous character of the finished preparation.

Petrolatum, which may be regarded as a bridge between the waxes and the oils, is used because of its ready liquefaction with only a small increase in temperature. Its addition will allow a cream, which at room temperature is fairly stiff, to liquify readily on application, because of contact with a warmer medium provided by the skin. In addition petrolatum has a characteristic "tackiness," which may be utilized to impart certain useful qualifications to the general over-all "feel" of the cream itself.

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Manufacturing conditions are as important in successful emulsion manufacture as are the formulations from which they are made. In an emulsion system where the temperature, of necessity, must be raised to a high enough point to permit the waxes to melt as a prerequisite to proper mixing, physical changes may easily occur as the temperature decreases. Sodium cerotate at room temperature in a system which is predominantly oil behaves as a water-in-oil emulsifier. At elevated temperature, however, this may no longer be the case, since the soap, certainly, has a tendency to increase in solubility in water with an increase in temperature to a greater extent than in oil. The emulsion may therefore start as an oil-in-water emulsion, which gradually begins to invert to a water-in-oil type, as the temperature becomes lower. If stirring, however, is inadequate, and the temperature does not drop uniformly throughout the mass, it is possible to have both phases present in a single system. If the stirring is then stopped before the inversion is complete, and the cream is filled into jars and allowed to set, there would be a marked possibility of a separation taking place.

At the same time if the cream contains enough waxes to give it a high setting point, but if this temperature is above the temperature of complete inversion, a similar phenomenon could take place.

The existence of both water-in-oil and oil-in-water emulsions in a system which is predominantly water-in-oil, usually starts to lose water from the emulsion, causing it to slip in the jar because the water forms an incompatible film around the sides of the jar.

Too low a percentage of beeswax in a system containing a maximum amount of the aqueous phase could easily form a mixture of the two types of emulsions and would be unstable.

Good practice dictates that the minimum amount of beeswax to be used in a beeswax-borax water-in-oil system be 10 percent, though the percentage may go as high as 15 percent. Borax may be used in quantities ranging from 0.5 percent to 1.0 percent, but a quantity much in excess of the stoichiometric acid should be avoided since the solubility of borax in water at room temperature is low enough to cause the excess borax present to crystallize throughout the cream.

The liquid cleansing creams are made the same as their stiffer counterparts except that the amount of waxes other than beeswax added are very much reduced.

The most successful manufacturing conditions for the beeswax-borax systems, are predicated on keeping the temperatures of the wax-oil solutions, and the water-borax solutions as low as would be consistent with proper mixing and thorough dispersion of the individual components within each other. The temperature of the two solutions should be as close to each other as is possible at the time the water phase is poured into the oil-wax phase. In practice this temperature is between 60°–70° C., though the closer it is to 60° C., the better would be the final result. This

precaution is taken to preclude the possibility of an oil-in-water system being formed at the beginning of the stirring period. In some cases it cannot be avoided and therefore the necessity for thorough mixing, until the cream has cooled to a temperature where it is still liquid and pourable, but only about 2° C. from its setting point.

Included herein are several formula intended to illustrate the types of creams discussed.

Cold cream

Beeswax	10	per cent
Ozokerite	10	" "
Paraffin	5	" "
Mineral Oil	42.35	" "
Lanolin	2	" "
Water	30	" "
Borax	0.65	" "
Preservative Perfume		q. s.

Cleansing cream

Beeswax	12	per cent
Ozokerite	5	" "
Spermaceti	5	" "
Mineral Oil	50.25	" "
Lanolin	2.0	" "
Water	25.0	" "
Borax	0.75	" "
Preservative Perfume		q. s.

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DIMETHYL UREA
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FOR SALE: Standard Automatic "Samco Jr." Vac. Bottle Filler; Buffalo Vac. Drum Dryer 24" x 20"; Abbe Pebble Mill 24" x 36", 30 gals.; Stokes Vert. High Vac. Pumps; Manton-Gaulin Stainless Steel Homogenizers; Devine No. 3 Vac. Shelf Dryers; Knapp Can Labeler; Stokes & Smith & Day Powder Fillers; Triangle Box Sealers & Carton Gluers, also Wrapping Machines; Edson 6 & 8 spout siphon bottle Fillers; Stokes & Colton Tablet Machines ¼" to 1 3/16"; Day & Robinson Dry Mixers 50 to 2500 lbs.; Sharples No. 5A Stainless Steel Centrifuges; Sperry & Shriver Filter Presses 18" to 42"; New Stainless Steel Tanks 50 to 5000 gals.; Stainless Steel, Alum., & Copper Jack. Kettles, 30 to 500 gal.; New Portable Elec. Mixers ¼ to 2 HP; Pumps; Mixers; Filters; Grinders; Crushers & Pulverizers; Sifters; Stills; Soap Machinery; etc. We buy your surplus equipment. Stein Equipment Co., 90 West Street, New York 6, N. Y.

BOILERS FOR SALE: Good used and new, high or low pressure boilers, reconditioned and State inspected. Also new and used smoke stacks, breechings, boiler tubes, pumps, motors, pipe, valves and fittings. Otto Biefeld Co., Watertown, Wis.

Machinery Wanted

HIGHEST PRICES PAID FOR GOOD EQUIPMENT. FIRST MACHINERY CORPORATION, 157 Hudson St., New York 13, N. Y.

Machinery Wanted

GET MORE FOR YOUR SURPLUS EQUIPMENT: List it with our bureau and sell directly to the next user. 50,000 manufacturers get our offerings regularly. They need such units as Fillers, Mixers, Labelers, Tablet Machines, Pharmaceutical Equipment, or what have you to sell. For quicker action and better price, send full details and your price to Equipment Finders Bureau, 6 Hubert St. New York 13, N. Y.

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SALESMEN WANTED: Experienced men for a leading well established company manufacturing and dealing in a full line of essential oils, perfume materials and flavors, to take over lucrative territory in the U. S. Please write qualifications. Our employees know of this advertisement. Box F-3, DRUG AND COSMETIC INDUSTRY.

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RESEARCH EXECUTIVE: Thorough experience in pharmaceuticals as director of research and development with record of achievement in the development of new research specialties. Organic Chemist Ph.D. familiar with patents, research administration (chemistry, evaluation in the drug field). Interested in research or development position. Box F-8, DRUG & COSMETIC INDUSTRY.

DRUG & COSMETIC SALESMAN covering Metropolitan New York past 15 years. Personal following. Car. Guarantee to produce results. Earnings over $6,000.00 annually. Will entertain good proposition. Box F-1, DRUG AND COSMETIC INDUSTRY.

PRODUCTION EXECUTIVE: Pharm. Chemist, experienced in pharmaceutical plant organization, management, employee training and placement, cost and quality control, production scheduling, equipment usage and maintenance. 12 years experience in key positions. Responsible position in progressive company desired. Box F-4, DRUG AND COSMETIC INDUSTRY.

CHEMIST—Cosmetic Ph.D. 15 years experience, manufacturing all kind of Toilet Preparations. Development, Research and Supervising. Box F-6, DRUG AND COSMETIC INDUSTRY.

EXECUTIVE ASSISTANT or Secretary; pharmaceutical field. College background; 13 years experience; assume responsibility; possess initiative and good judgment. Box F-7, DRUG AND COSMETIC INDUSTRY.

Business Opportunities

H. GEDDES STANWAY, former Dir. Salary and Wage Systems—E. R. Squibb. Now available as consultant—Specialist on—Job Evaluation, Wage and Salary; Supervisory Training Negotiations. 60 E. 42nd Street, New York City, Va. 6-4972.

FOR SALE or Partnership, Manufacturing equipment to Manufacturing products, such as ointment, disinfectants etc., copper kettles, mixers, 12 spout filling machines, large pasteurizer, 400 thousand 1¼ oz. cans, 40-5 gallon cans of Diethylene Glycol, 10 tons drugs & chemicals. Box F-2, DRUG AND COSMETIC INDUSTRY.

CONSULTING WORK SOUGHT. University Professor and industrial research chemist. Extensive development and production experience. Good laboratory facilities for organic, physical-chemical research, engineering studies. Specialize in Foods, Pharmaceuticals, Proteins, Fermentation by-products, etc. Box F-5, DRUG AND COSMETIC INDUSTRY.